

Open Research Online

The Open University's repository of research publications and other research outputs

The Experience of Joe: A Sociocultural Study of an Autistic Pupil in a Mainstream Secondary School.

Thesis

How to cite:

Willis, Angela Dawn (2021). The Experience of Joe: A Sociocultural Study of an Autistic Pupil in a Mainstream Secondary School. EdD thesis The Open University.

For guidance on citations see [FAQs](#).

© 2021 Angela Dawn Willis



<https://creativecommons.org/licenses/by-nc-nd/4.0/>

Version: Version of Record

Link(s) to article on publisher's website:

<http://dx.doi.org/doi:10.21954/ou.ro.00012a7e>

Copyright and Moral Rights for the articles on this site are retained by the individual authors and/or other copyright owners. For more information on Open Research Online's data [policy](#) on reuse of materials please consult the policies page.

oro.open.ac.uk



The experience of Joe: A sociocultural study of an autistic pupil in a mainstream secondary school.

Angela Dawn Willis

Centre for Research in Education and Educational
Technology

Doctorate in Education

20th April 2021

Abstract

This study investigated the experience of Joe, a year nine pupil with autism, as he participated in lessons alongside his peers in a mainstream school. Data were produced by observation of the activity and relationships in five lessons, over two visits, and follow-up interviews with relevant teachers and teaching assistants. Data were analysed using the framework of the institutional, interpersonal, and intrapersonal planes developed by Rogoff (2003). The analysis revealed the dominance of institutional policies, practices, and routines on how Joe was responded to in his lessons. Review of the school policy documentation established that pupils' reading age scores determined class groupings and, in turn, teachers' assumptions about the ability range of pupils in their lessons. Special Educational Needs and Disability emerged as a specialist domain within the school with teaching assistants deployed to work with pupils with Education Health and Care Plans in lessons. The teachers and teaching assistants participating in the study seemed tacitly to accept an interactional worldview of schooling (Rogoff, 2016) and to conceptualise learning within the associated cognitive-developmental paradigm. The result of this was that Joe was perceived as 'just one of the class'. This did not require his teachers to implement the specific strategies that were recommended for him in the school's SEND register. Rather, teaching assistants mediated curriculum information for him. Uniform transmission teaching approaches meant Joe's interaction, communication and information processing needs were ignored as the focus was on maximising literacy and curriculum knowledge.

The evidence of my study challenges the interactional worldview of SEND. The dominance and acceptance of this worldview limited the opportunities available for teachers and TAs to respond to Joe's autism as teachers felt constrained by their obligations to report on pupil progress and performance. When a participatory approach was used by a teaching assistant, Joe was able to demonstrate his ability to cooperate, coordinate and contribute to learning activity with others. The approaches occasioned by different paradigmatic beliefs had clear implications for Joe's participation, how he felt about his contribution to learning and how teachers and TAs described his abilities. The transactional worldview of learning conceptualised within a participatory approach (Rogoff, 2016, p.182) which transformed Joe's participation offers an insight into 'inclusion' that warrants further

investigation for the benefits it may offer leaders and teachers in responding to neurodiversity in schools.

Acknowledgements

With thanks to my son Jake. Our journey has opened my eyes and inspired me to better understand autism. Charlotte, Emma and Katie, your support of my aspirations to write this thesis has pulled me through. You are truly wonderful daughters. Dr. Felicity Fletcher-Campbell and Dr. Janet Soler, so much is owed to the advice, guidance and experience you have steadfastly offered me. Where one journey ends, a new chapter now begins.

Table of Contents

ABSTRACT	I
ACKNOWLEDGEMENTS	IV
TABLE OF CONTENTS	VI
ACRONYMS.....	X
CHAPTER 1 INTRODUCTION	11
1.1 My journey with autism.....	11
1.1.1 A life with autism.....	11
1.1.2 The value of experience.....	12
1.1.3 Sociocultural structures shaping individual's development	13
1.2 Taking a sociocultural position.....	14
1.2.1 The context of my study on the lived experience of a Year Nine autistic pupil in five mainstream classes [across two separate visits]:	16
1.2.2 Political context of this study	17
1.2.3 The UK Government response to Special Educational Needs and Disabilities.	18
1.3 Summary.....	20
CHAPTER 2 LITERATURE REVIEW	23
2.1 Introduction	23
2.2 Rationale	24
2.2.1 Exploring participation using a sociocultural lens.	39
2.3 Refining the search strategy	42
2.3.1 Context, experience, and transformation of participation, within a sociocultural paradigm.....	43
2.3.2 Participation in activity	46
2.3.3 Transformation of participation.....	48
2.3.4 The influence of community values and practices	51
2.3.5 Teachers' perceptions of themselves as professionals	55
2.3.6 SEND policy and deployment of TAs as a response to autistic pupils	61
2.3.7 Autism as 'a special need'.....	64
2.4 Rationale for the use of Rogoff's concept of transformation in participation and planes of analysis.....	69
2.5 Conclusion	71
CHAPTER 3 METHODOLOGY	78
3.1 Introduction	78
3.2 Ethics, issues, access, and consent	78
3.2.1 Gatekeeper roles and adult participants.....	79
3.2.2 Young person participant	81

3.3 Setting the scene.....	82
3.4 Literature search strategy	85
3.5 Rationale for methods	87
3.7 Collecting cultural data	88
3.8 Validity and credibility in research tools	89
3.8.1 Observations.....	89
3.8.2 Observational analysis.....	91
3.8.3 Interviews	92
3.8.4 Interview analysis	95
3.8.5 The place for researcher reflection.....	96
3.9 Relevance of the methodology to a sociocultural viewpoint	98
CHAPTER 4 ROGOFF'S SOCIOCULTURAL CONCEPTUAL FRAMEWORK FOR UNDERSTANDING JOE'S EXPERIENCE, PARTICIPATION, AND MEMBERSHIP WITHIN HIS COMMUNITY OF LEARNERS.....	100
4.1 Introduction	100
4.2 The influence of the dynamics between the planes on what is understood about an autistic individual.	105
4.2.1 The priority accorded literacy	106
4.2.2 Negotiating uniform approaches	108
4.2.3 The significance of what was understood about Joe to his experience of participation and membership	111
4.2.4 Peer relationships	112
4.2.5 Teacher relationships.....	113
4.2.6 TA relationships	114
4.3 Joe's experiences as an autistic individual in five mainstream lessons:.....	116
4.3.1 Apprenticeship in repertoires of classroom practice	118
4.3.2 The influence of apprenticeship on experience	120
4.3.3 Interplay guiding the organisation of activity.....	121
4.3.4 Interplay guiding classroom roles.....	122
4.3.5 Opportunities for Joe's experiences of activity and relationships to be transformed	126
4.3.6 In-the-moment experiences and community values guiding classroom actions and responses to Joe.....	129
4.3.7 The influence of activity in the planes on Joe's experience of membership in lessons within his community of learners	133
4.4 Dynamics and practice operating in and between the intrapersonal, interpersonal, and institutional planes, that shape Joe's lived experiences	137
4.4.1 The influence of institutional tools and practices on classroom repertoires of practice.....	138
4.4.2 School policy.....	138
4.4.3 Setting by literacy ability.....	140
4.4.4 The influence of individual experience on repertoires of practice	141

4.4.5 The value of literacy.....	142
4.4.6 Teacher accountability to the curriculum and pupil learning	143
4.4.7 The influence of apprenticeship on participatory appropriation and repertoires of practice.....	144
4.4.8 The influence of the timetable and curriculum on classroom activity	145
4.4.9 The influence of institutional arrangements on adults' classroom actions.....	146
4.4.10 The influence of policy on classroom roles.....	147
4.4.11 Tension arising from the segregation of school endeavours from mature activity	148
4.5 Conclusion	151
CHAPTER FIVE: DISCUSSION	155
5.1 Introduction	155
5.2 Rogoff's (2003) planes to interpret the dynamics between context, activity and experience applied to my study	157
5.2.1 The influence of the institutional plane on the arrangement of class groups, teacher, and TA deployment.....	159
5.2.2 The influence of the institutional plane on repertoires of practice in Joe's five lessons	160
5.2.3 The influence of the institutional plane on what Joe's teachers understood about him.....	162
5.3 Valued knowledge and the dominant worldview	166
5.4 Conflicting worldviews	169
5.5 Opportunities for transformation:	172
5.6 Implications for organisation and assessment of learning.....	180
5.7 The value of integrating lived experiences into classroom pedagogies:.....	184
5.8 Conclusion:	188
5.9 The contribution of my study to future educational research and school-based practices.....	190
REFERENCES	194
APPENDICES	203
Appendix 1 – Consent/opt in letters and information for gaining Informed Consent for Participation	203
Appendix 2 – Application details outlining ethical considerations.....	217
Appendix 3 – Joe's timetable.....	258
Appendix 4 – Sample of raw observational data showing time spent in different types of tasks.	259
Appendix 5 – Joe's descriptions of his classroom relationships.....	271
Appendix 6 - Table summarising observations of the total percentage of time teachers accorded to the different task types in classroom activity:	277
Appendix 7 - Example of interview transcript (teacher).....	279
Appendix 8 - Example of interview transcript (TA)	282
Appendix 9 - Example of transcription coding Music One.....	1

Acronyms

ASC/ASD	Autism Spectrum Condition/Autism Spectrum Disorder
BERA	British Education Research Association
CREET	Centre for Research in Education and Educational Technology
CoP	Code of Practice
EHCP	Education, Health and Care plan
HREC	Human Research Ethics Committee
SEND	Special Educational Needs and Disabilities
TA	Teaching Assistant

Chapter 1 Introduction

My motivation to undertake doctoral research into the experience of being autistic in a mainstream school was both professional and personal. In this introduction I outline my experience as a mother and professional that has encouraged my research. I then position myself as a researcher and provide a rationale for my choice of a theoretical and analytical framework. This provided the basis of my literature review (chapter two). I will also introduce the main argument which is developed throughout this thesis, that is, educational research in this area needs to more firmly link theory to practice for senior leaders and teachers to more effectively plan and implement provision for autistic individuals. This chapter has been organised to take the reader through the journey of my personal and professional experiences to the starting point of my research.

1.1 My journey with autism

1.1.1 A life with autism

My son, Jake, was diagnosed with Asperger's syndrome at 8 years old. His difference was apparent from 18 months of age – he was difficult to pacify, unpredictable in his responses to people and situations, and easily distressed. His diagnosis was a relief; a turning point in our relationship, and the start of my journey to better understand and support him.

Our journey together has given me great insight into his struggles and strengths as a young person with autism. Being Jake's mum has challenged my personal and professional beliefs about 'equality' and 'difference' in relation to learning and development. We have consistently faced issues related to definitions of 'equality' and 'reasonable adjustments' embedded in UK legislation. Inconsistency and disagreement

between professionals and practitioners have led to a variety of different social and educational experiences for Jake throughout primary, secondary and post-16 settings.

Jake's diagnosis has changed the course of my professional career. I have become qualified in Special Educational Needs and work as an Education Consultant, a far throw from my initial qualification and anticipated pathway as a secondary school trained PE teacher. My personal and professional journey continues to teach me that it is the relationship a person develops with the world which is fundamental to all activity and, in turn, activity is itself the space to make social 'sense of' the world. I have learnt that, for autistic individuals, how information is presented and how they are responded to are fundamental aspects of the opportunities they have to develop and transform their understanding and participation. My experience has caused me to question why so many with a diagnosis of 'autism', experience 'mainstream' activity as a 'battle' until someone else 'gets them'.

Given that the UK education system is guided by legislation that emphasises inclusion and equality for all, I have wondered why it has always been a battle. Legislation is often referred to, such as the *Equality Act* (Great Britain Parliament. House of Commons, 2010) or *Special Educational Needs and Disabilities Code of Practice* (Great Britain. DfE and DoH, 2015), yet the experiences reported to me by parents and young people, and the challenges and isolation Jake has experienced across his schooling years, continue to be the experiences for autistic learners in school settings. Why do I see the same tasks being set for all pupils in the schools I work with? Or witness autistic pupils being removed from lessons to work with a Teaching Assistant (TA)? Despite changes in legislation I question why the same frustrations Jake and I have experienced continue to be voiced by school staff, parents, and young people.

1.1.2 The value of experience

My observations, conversations and experiences across the years have caused me to reflect on the social 'nature' of the human experience to form relationships with 'the world' that seem to elicit a negotiation between people. It is undeniable that humans are social and live in social contexts steeped in meanings that pass between people and across history. The human capacity to respond and adjust to our own and others' perceptions of a shared context as we engage in activity has led me to question, first, the ways that teachers' beliefs influence their classroom decisions and actions; secondly what are the ways they communicate this through classroom activity that reflect the ways different individuals respond to information.

The complex transactions between context, activity and experience represent the interplay between the 'self' and the social world which are inextricably entwined and fundamental to human development (Rogoff, 2003). For example, when I pick up a book, I understand it as such because I have learnt this is what it is called from other people. I engage with this social meaning that has been determined at some point in history by other people. As I read the text, I engage with the thoughts and ideas of its author. The author's words provide me with the opportunity to challenge my own beliefs and ideas that alters what I understand, no matter how brief or how enduring. The rich information that context and experience provides, and which is necessary for transactional activity, offers a fuller picture of human actions and decision making. To best explore the 'story' of a young person with autism warranted investigating the 'scripts' that shaped the actions of 'all the actors' in classrooms that were the 'stages' where transactional activity took place.

1.1.3 Sociocultural structures shaping individual's development

Context, activity and experience and the interplay between these emerged as areas to interrogate to gain a deeper understanding of the frustrations of the 'realities' that have been expressed to me by young people with autism and their families. My reflections on my observations, conversations and questions highlighted that the ways in which

individuals perceive themselves and others, as community members, influences the ways they participate in social activity. The suggested interplay between community, social and individual actions, and understandings alerted me to the importance of investigating the sociocultural organisation and arrangements in place as part of the wider school (such as class groups set by ability) and the influence these had on creating a social context for classroom activity and relationships and shaping individuals' understandings and participation.

I was interested in how experiences of learning tasks and classroom peer relationships were shaping an autistic individual's understanding of his membership in a mainstream secondary school learning community - in particular, how the dynamics of the context - for example, how wider school policy, practice and expectations of senior leaders influences classroom activity, and classroom group dynamics and how these contextual dynamics shape individual experiences and the co-construction of membership. As these interactions at different levels shape the individual autistic pupil's experiences I felt the situation warranted a sociocultural investigation to examine the influence that the dynamics between the institutional and intrapersonal planes were having on in-the-moment actions and discourse in the interpersonal plane.

1.2 Taking a sociocultural position

The sociocultural position asserts that the ways interactions and relationships are experienced are influenced by the structure of activity (Vygotsky, 1978; Lave and Wenger, 1991; Rogoff, 2003). This theoretical and analytical sociocultural framework was significant for my study and how I interrogated experience as authentic and 'multi layered'. The complex reality of experiences guiding how a person identifies themselves as a member of their community and exhibits this during transactional activity provided different lenses to interrogate in-the-moment actions and discourse. If it is that actions and discourse during activity interplay with experience and context, what a person learns

about community membership emerges in the responses they interpret from others. The sociocultural paradigm offered an alternative perspective to interrogate community processes, and the interpersonal and individual responses contributing to how a young person with autism perceives their relationships and participates in shared endeavours. This would be inhibited by a focus on the individual alone.

The work of Conn (2014a; 2014b), which I encountered during my literature review, became influential, because by taking a sociocultural position she was able to introduce alternative ways of thinking about what behaviours communicate and how 're-interpreting' these can change other people's responses to an autistic individual. Conn's work has demonstrated that 'reframing' what is understood about behaviour using an 'autistic lens' can alter how an autistic individual participates in activity and relationships. My study aims to add to this area by exploring what is shaping how an autistic pupil in the secondary phase of mainstream school is understood as a learner, and how they participate in classroom activity and relationships.

The theories of learning of Vygotsky (1978) and Lave and Wenger (1991), and Rogoff's (2003) concept of transformation in participation, were of particular interest to me, but also presented a challenge as they differ from the approach in the previous research I had been familiar with, which views autism as a developmental 'disorder'. This focus on inherent individual deficit has disregarded the nature of being human, that entwines the individual with the social, and the influence of context, activity, and experience. Importantly, as Shuell (1993) and Gage (1989) emphasise, a singular focus on human development that looks solely at the biological or the environmental cannot capture 'lived experience' and the individual's reality - for example, of how a 'medical diagnosis' shapes their participation in, and experience of, daily life. There was, therefore, the space, and evident gap in research, for my study to explore the interplay between the individual and the social during 'in-the-moment' activity occurring in a specific context.

1.2.1 The context of my study on the lived experience of a Year Nine autistic pupil in five mainstream classes [across two separate visits]:

I wanted to investigate what was understood about Joe's development and participation (as a Year Nine pupil with a diagnosis of autism in a mainstream secondary school setting) through taking a complex, dynamic, interactive socio-cultural perspective, rather than adhering to a psycho-cognitive/medical position which is evident in his diagnosis as autistic. His diagnosis is certainly significant within the medical field that has identified him to have persistent differences in social interaction, language, communication and imagination (American Psychiatric Association [APA], 2013) and within legislation, for example the *Special Educational Needs and Disabilities Code of Practice* – [CoP, 2015] – (Great Britain. DfE and DoH, 2015), the *Equality Act* (Great Britain Parliament. House of Commons, 2010) and how this is implemented in schools (Great Britain. DfE, 2014). However, I was interested to investigate the extent to which his medical diagnosis was relevant in classroom activity and others' responses to him. Given context, activity and experience interplay (Rogoff, 2003), how Joe was responded to as a pupil with SEND in school policy documents and within classroom relationships, and how he participated needed to be considered in relation to the school's learning tradition, its associated conceptualisation of learning and the ways this shaped activity and roles.

I focused on a mainstream secondary school. My observations and experience as a pupil, teacher and advisory teacher in different local authority schools has revealed consistent similar routines. Unlike most primary schools, these routines include regular movement of pupils to different 'curriculum' subject classrooms across the day, and 'set tasks' that take place within lessons, such as administration tasks led by teachers (see findings). The way a secondary school organises curriculum groups varies: for example, if pupils are set by 'ability', this often means different pupils are together for different lessons. For a person with autism, the secondary school setting can involve greater social tensions and stress during a time of increased curriculum demands - for example, as young people work towards public examinations. Secondary school is also where there are pronounced

shifts in the emotional and physical changes of adolescence (11-19 years). It has been reported by some adults with autism, that peer relationships in mainstream contexts are particularly problematic and anxiety evoking (Williams, 2010). For a young person with autism the secondary school phase is difficult to negotiate, particularly when they are insufficiently understood and supported by others (Attwood, 1998). This difficulty is accentuated by the way young people tend to place a greater emphasis on peer approval and acceptance in their secondary school years (Hay and Winn, 2012). Given this, the secondary phase of education can be notorious for the increase in anxiety and isolation that young people with autism report (Acker, Knight, and Knott, 2018).

The secondary phase, therefore, seemed to be a particularly relevant area to explore given the difficulties people with autism face in transferring their knowledge between different contexts (Attwood, 1998) and the greater drive for peer approval and acceptance during adolescence (Hay and Winn, 2012; Acker, Knight and Knott, 2018). Given Joe is an adolescent male with autism I was interested in the ways opportunities were structured to enable him to participate in classroom life and negotiate his classroom relationships that would seem to be important to his emotional health and curriculum learning.

1.2.2 Political context of this study

My study focused on Joe's mainstream UK secondary school. Rogoff (2003, p 20) suggests that the European model of education is underpinned by social thinking to '*raise people out of poverty and ignorance and bring them into "modern" ways*'. Rogoff *et al.* (2005) terms this as an assembly-line learning tradition that favours individualism where qualification/s indicate achievement. An accountable skills-led academic curriculum and assessment framework (Spielman, 2017) reflects a historic education learning tradition that tests specific 'knowledge and skills' that have high 'economic' value (Edgar, 2012). This position creates a dominant cultural discourse on individual pupils' academic attainment in assessment that is akin to the cognitive-psychological paradigm and

neoliberal purpose of education (Humphreys, 2017; Pratt, 2016). This is important when we consider that prioritised values shape cultural activity, and the roles people take within it (Rogoff, 2003).

The theoretical framework of my study was important as it identified the influence of the culture of Joe's school as a 'community of learners' that defined membership through policy documents and shared understanding of the purpose of classroom actions and discourse in a range of lessons. The culture of Joe's school and the priorities that were apparent in practice, such as how teaching groups were organised and TA deployment was arranged, highlighted the reliance teachers had on TAs to mediate activity for Joe. The TA role was then to interpret tasks and support Joe to engage in these when teachers were under pressure to produce data on pupils' academic performance. Teachers' descriptions of curriculum pressures unearthed the frustrations they felt in the lack of time they perceived they had to establish relationships with pupils. The pressures of the curriculum and the priority accorded to these then framed Joe's experiences of his mainstream lessons.

1.2.3 The UK Government response to Special Educational Needs and Disabilities

It is also important to situate my study in relation to the *Children and Families Act* (Great Britain Parliament. House of Commons, 2014) which included the revision of schools' duties around Special Educational Needs and Disabilities [SEND]. The *SEND Code of Practice 0-25 years [CoP]*, was introduced in 2014 and updated in 2015 by the Department for Education [DfE] and Department for Health [DoH] as a statutory policy for schools. The *CoP* (Great Britain. DfE and DoH, 2015) stipulates the responsibility of mainstream settings to educate children and young people with SEND without an Education, Health and Care Plan [EHCP], while a choice of mainstream or specialist provision is available to those with an EHCP. The *CoP* (Great Britain. DfE and DoH, 2015) makes it clear that a school's culture has an influence on the experiences and outcomes for young people with specific individual needs.

The *CoP* (Great Britain. DfE and DoH, 2015:6.29) identifies autism as a ‘communication and interaction’ difficulty:

‘Children and young people with ASD, including Asperger’s Syndrome and Autism, are likely to have particular difficulties with social interaction. They may also experience difficulties with language, communication and imagination, which can impact on how they relate to others’.

This description is problematic. The emphasis on inherent ‘difficulties’ alludes to the deficit medical model used for diagnosis. Whilst a diagnosis of disability is important because of the legal protection it accords people, to categorise an individual on a ‘can’t do’ basis is flawed and fails to encapsulate human diversity. When autism is considered as ‘an alternative way of thinking’ (Beadle, 2018) such a focus on ‘deficit’ becomes open to challenge. This distinction in perspectives is important to the sociocultural focus of my study which asserts the way behaviours are understood are shaped by individuals’ experiences and the opportunities they have to challenge their knowledge as they share activity and discourse with others.

Nor does this distinction imply that inherent organisation in the brain cannot be acknowledged within the sociocultural perspective. Rather, it demonstrates that when autism is responded to as a social and interaction difference, deficit or irrelevance, this influences the experiences and development of social relationships for people with autism. The opportunity to co-construct knowledge and the actions taken to make adjustments then becomes a key area to explore in classroom activity. Teachers in particular have a responsibility to make adjustments which are identified within the *CoP* (Great Britain. DfE and DoH, 2015); these emphasise flexible teaching practices to secure the best possible development and learning outcomes for children and young people:

High quality teaching that is differentiated and personalised will meet the individual needs of the majority of children and young people. (Great Britain. DfE and DoH, 2015, p25)

The *CoP* (Great Britain. DfE and DoH, 2015) does not define high quality teaching. However, characteristics are identified as explicit teacher performance judgement criteria within the *Common Inspection Framework* (DfE, 2015). This framework gives a clear expectation to teachers on their role in pupil progress. Thus, teachers become both central to, and accountable for, pupils' academic and social outcomes. Whilst this position is open to challenge, it is not done so within my current study – my focus is on what is happening within classroom practice at the current time.

1.3 Summary

The political background and context underpinning my study was significant because of the potential juxtaposition of the cognitive and sociocultural paradigms prioritised by the Government on the importance of learning outcomes for schools' performance data and accountability for individual progress of pupils under SEND policy. Joe's school's response to securing learning outcomes was detailed in its different policy documents and practices - for example, setting pupils into groups based on their results in literacy assessments. Class groupings and timelines established by senior leaders for teachers to formally assess and report on pupils' progress and attitude to learning was then determined within a wider school organisation that can be seen in Rogoff's (2003) terms as the 'institutional plane'. Rogoff (2003;2005) suggests that whilst individuals can choose how they participate in community activity, the influence of institutional values remains significant for members' roles and the activity they have access to. In particular, the type of childrearing tradition a community favours significantly influences the activity children have access to. For example, young people learn the traditions and ways of their community, through observing adult roles and helping out in community endeavours before they take on adult responsibilities. In this way learning occurs through 'pitching in'

from a learning tradition of intense community participation (Rogoff, 2005, p13). In contrast, in what can be viewed as assembly-line learning traditions (Rogoff, 2005, p18), young people are segregated from adult activity through formal schooling. Thus, institutional values and practices influence an individual's experience of activity and membership. The sociocultural framework of my study enabled an investigation into the influence of institutional organisation policies and practices on classroom actions and discourse in the light of Joe's autism diagnosis and EHCP 'status' that should influence the approaches teachers use in classroom activity.

The sociocultural position taken in my research asserted that the way individuals participate is guided by their experience of conflict or coherence as they negotiate what they have formerly learnt with what they perceive as being expected of them in-the-moment - for example, about their role - from colleagues, programmes of study, legislation. Rogoff (2003) uses the term 'interpersonal plane' to describe in-the-moment activity and relationships. Observation of activity and interactions thus provides a lens to investigate participation and explore why this is so. My observations of classroom activity allowed an investigation into what was shaping classroom roles and activity and what this meant for Joe as a community member with identified interaction and communication issues through virtue of his autism diagnosis and his needs detailed in his EHCP.

I explored the intrapersonal plane's influence on Joe's participation in activity, his classroom relationships, and what he understood about 'himself' as a member of his classroom 'communities' from the way others responded to him. Interviews with Joe, his teachers and those he interacted with in classroom activity offered the opportunity to interrogate what was guiding their knowledge and in-the-moment actions. Thus, my study focused on the interplay between context, activity and experience to examine the responses to Joe, as an autistic individual within his 'community of learners', and the dynamics between the planes that was guiding this. To add to the sparse research into autism through a sociocultural lens and the relevance of diagnosis to 'lived realities' in a school setting, I observed classroom activity and the ways Joe, his peers and staff

participated. Further understanding was gleaned from interviews with Joe, his teachers and TA's about:

- a) The influence on the organisation of social practice in different classrooms
- b) What was shaping the roles and relationships between people
- c) The opportunities available for transformation

Joe's 'voice' was therefore presented within my study from a particular sociocultural framework advocated by Rogoff's (2003) concept of the transformation of participation in cultural activities (see Rogoff 2003, p.37), and this in turn informed by my literature review, findings and discussion.

Chapter 2 Literature review

2.1 Introduction

My single unit case study research, as will be outlined in chapter three, explored mainstream classroom activity as experienced by a young person (Joe) with a diagnosis of autism. My curiosity and observations outlined in chapter one, guided the initial research questions. These were:

RQ1: How does understanding of diversity and difference emerge from the way that pupils, teachers, and teaching assistants negotiate and adjust their beliefs as they encounter others within the classroom?

RQ2: What dominant beliefs about roles, relationships, and pedagogies to support learning emerge from the actions and discourse within classroom activity?

RQ3: How does the structure and organisation of classroom activity provide opportunities for Joe's role and relationships to be transformed?

In this literature review chapter, I outline the rationale behind my reading and my decision to frame my study within the sociocultural perspective. My literature review then moves on to explore participation through a sociocultural lens. It will conclude with a discussion of the way in which autism is regarded both as 'a special need' and as a different way of perceiving the world and social behaviour. This position and the themes discussed in this literature review will inform and shape the methodology which will be the focus of the following chapter.

2.2 Rationale

The tensions between my lived experience and the priority accorded to the medical explanations of cognitive development, had guided my literature searches in my pilot study and alerted me to the work of Rogoff (2003). Her studies draw upon the community, in particular the social and individual dynamics flowing through a community's learning tradition that influences the access children and young people have to the mature activities of adulthood. It also influences the ways adults organise activity and how adults and young people participate in this activity and identify themselves as community members. Rogoff (2003) suggests development occurs as a result of an individual's experience of the activities they are involved in. These activities are guided by historic traditions, practices and values - for example, a learning tradition - which can be described as a 'worldview' (Rogoff, 2016). From this perspective, the experience of community activities which a person has access to is the foundation for transformation in community, social and individual planes, such as in knowledge, skills, and membership shown in practices, actions, and discourse.

Rogoff's (1995; 2003) concept of transformation in participation provoked me to reflect on my personal, professional and study experiences of autistic individuals' participation in mainstream lessons in comparison to their peers. It seemed to me that the cognitive-developmental paradigm dominated much of the learning activity organised in lessons and a tacit acceptance that a 'one size fits all' approach is sufficient for all learners when teachers are under pressure to produce performance data. To investigate this further, I piloted Rogoff's (2003) planes of analysis in my initial study to explore the relevance of autism diagnosis to the actions and adjustments made for an autistic pupil in their mainstream school. My findings highlighted the uniform approaches of teachers and the expectation for all pupils to learn from this. Within the context of this initial study, learning

was embedded in the cognitive-developmental paradigm and neoliberal view of the purpose of education; an autism diagnosis did not, therefore, influence how information was presented and activities were organised.

My literature review thus has been guided by the tensions apparent in the disparities between the psychological and sociocultural paradigms. This is evident, for example, in the different conceptualisations of learning arising from these paradigms. It is the distinct differences in how development is conceptualised in these two theories of learning that is particularly problematic. For example, Piaget's cognitive-psychology based theory of cognitive development identified a fundamental, staged, inherent human capacity for mental representation (Lourenco, 2012); each progressive stage is dependent on the achievement of the preceding one. If this is accepted, the 'building blocks' of brain development drive what is understood about social experience and how a person participates in it.

Whilst Piaget's assimilation/accommodation may be equated to Vygotsky's internalisation/externalisation (Lourenco, 2012), Piaget's adherence to the development of an individual in isolation from the social context and relationships of the social world was problematic in explaining autism and Joe's experiences. Piaget's concept of stage development would suggest an inherent developmental deficit that prevents autistic individuals from conceptual thought. However, anecdotal reports from autistic individuals describe creative and novel thought (Jackson, 2003), observations and interviews with children with autism have illuminated the presence of knowledge and application of 'social rules' in play (Conn, 2014a; 2014b), and clinical studies are beginning to suggest conceptualisation processes are present but exist in neural pathways different from those of 'non-autistic' individuals (Constable, Ring, Gaigg and Bowler, 2018). Piaget's (1972) theory of stage development then becomes insufficient in explaining autistic people's abilities to show the same social roles as their peers (Conn, 2014a) and their tenacity and drive for attention to detail (Attwood, 1998) because it does not consider the influence of experience and the social world.

The cognitive-developmental theory of Piaget implies that learning, conceptualised as a predisposed and cognitive organisation, separates a person from their social and contextual experiences. This is problematic because it risks defining an individual with autism as being deficient, limited, and maladapted to being able to function in community ways of life. In contrast, where development is conceptualised as occurring in the transactions between context, activity and experience, then it is the adjustments in activity and social interactions through the active co-constructing of meanings that determines how different individuals develop knowledge in diverse ways (Vygotsky, 1978; Lave and Wenger, 1991; Rogoff, 2003). As Attwood (1998) and Conn (2014a) point out, being autistic does not mean that a person has a reduced capacity for development; it is more a matter that what is happening in transactional activity requires specific awareness and adjustment by others so that the same information can be presented in a different way - for example, through avoiding metaphorical language. Thus, context, activity and experience have an important influence on an individual's development. The different ontological and epistemological stances of the cognitive-developmental and sociocultural positions present development as either predetermined and fixed, or influenced by others and pliable. How Joe was understood by those around him would then be determined by the paradigm position prioritised in Joe's context. This informed my initial research question.

Given that adults' organisation of activity and relationship management reflects the values and priorities of the wider culture in which members are apprenticed (Rogoff, 1995; 2003; 2005), it was important to consider the influence of the school context on the lesson activity and relationships that occurred in-the-moment. Joe's experiences needed to be interpreted within the policies and practices of the wider setting of the school, where documents and decisions made by school leaders with a duty to implement national policies such as the National Curriculum, were accountable to the political-educational bodies who scrutinise the ways schools comply - for example, Ofsted. My study was concerned with the ways in which teachers negotiated their accountability for Joe's progress, as an autistic individual who was engaged in mainstream classroom activity,

amongst peers who did not have identified differences in interaction, communication, information and sensory processing (APA, 2013; DfE and DoH, 2015).

A diagnosis of autism is guided by a clinician's judgement of a person's interaction and communication using standardised tools where responses are coded into types and converted into algorithm scores (Morrier, Ousley, Carceres-Gamundi, Cubells, Young and Andari, 2017). Given this, a person's response to 'standardised' social activities is compared to what is culturally expected of their chronological age and development, which results in a diagnosis based on a set 'scoring system'. The use of 'fixed points of reference', such as innate developmental stages and comparison ratings, suggests value is accorded to cognitive psychological based clinical assessment of 'normal' and 'deficit' responses in relation to standardised norms. A formal diagnosis of autism is then dependent on a particular paradigm position that emphasises an individual's difference in comparison to what has been established as cultural expectations of development.

What is decided on within a clinical setting about a person's abilities in comparison to others of the same chronological age is then based on differences in 'performance' on set activities. However, what is decided on in a clinical setting may not reflect how a person functions in daily situations as these are socially and affectively dynamic. An example of the difference between how an individual functions in different contexts has become particularly evident to me from the way audiences perceive my son when he delivers presentations about his experiences of being autistic. I am often approached by individual audience members who say they are amazed at his ability to stand up and talk with such articulation and insight. Thus, his diagnosis becomes irrelevant in this situation, because of the way he 'captures' the audience. What they do not see is the significant amount of support it takes to get him to the right place, at the right time, with the right equipment and such like, because his ability to organise himself and stay on task without prompting is a noteworthy struggle for him.

The research literature centred on people with ASC had burgeoned in recent years following an historic focus on autism within psychological domains. Autistic scholars' and

writers' perspectives and experiences of being 'different' from others (for example, Sainsbury (2009), Saggars (2015)), have highlighted some of the differences they perceive in the way they interpret and respond to others:

'I've always been quiet. For as long as I can remember, adults have been telling me to speak louder and more often. After being told this, I usually speak inaudibly and less frequently. I've never really been a people person either. Don't get me wrong, I like people; I just don't like being around them. They make me nervous and I never know what to say. I'm sort of hyper and fidgety and do weird things with my hands, and always have twenty things going through my mind at once. [. . .] I imagine about everyone's life but my own, probably because I always tend to screw up mine with the way I act. I have a hard time smiling at people. That's just pitiful. It is like an intoxicating disease, spreading from my voice all the way to my nervous system. It rusts up my joints and leaves me with overemphasized, robotic movements'.(Heilker and Yergeau, 2011, p489)

Yergeau's (2011) acute awareness of her responses in social situations makes it clear that the heightened anxiety of trying to 'fit in' with the expectations of others has physiological consequences for her; as a result, despite her desire to be social, the difficulties she experiences inhibit her and she is keenly aware of how she differs from what others expect in social behaviours.

The value of the insights of being autistic held in the accounts of autistic individuals, such as Yergeau (2011), Murray (2020)); Sainsbury (2009), alerts others of the need to be aware of autistic responses and to be mindful of the expended energy and anxiety which Yergeau (2011) reports to originate from meeting the social expectations of others. Therefore by listening to an autistic individual's voice, what is understood about them by others within their shared social context is evidently fundamental to how both the autistic individual and those around them experience relationships and activity. Thus how 'voice' is listened to, recorded, responded to, and accessed by others is a valuable area of investigation. For example, within school settings, information held in documents, such as the SEND register, may provide teachers and TA's with details on individual strengths,

difficulties, specific and general strategies to support an autistic pupil to engage in classroom activity. Thus the wider structure of a school and its community become valid aspects to investigate how an autistic individual is responded to 'in the moment' within classroom activity and relationships. There are social and individual dynamics which influence the information that individuals access and act upon, and what they understand about their own and others' roles.

The values and beliefs different individuals form from their experiences of neurodiversity in their relationships are important; relationships established within a context and during activity are the foundation of learning (Rogoff, 2003). The apparent fragility in social experiences outlined by Yergeau (2011) indicates context and activity are influential aspects in an autistic individual's physiological-affective response to relationship development. Trust, support, and how invested in a relationship a person feels, have been found to be critical to academically able autistic adults' experiences of effective support (Robledo and Donnellan, 2016). In particular, the way in which support was experienced was found to be influenced by the dynamics between the competence a person was presumed to have, the way people collaborated, and the vision each had of the autistic individual's independence. Consistency, flexibility, and inclusion were fundamental to trust and communication, where understanding and characteristics of support influenced a sense of unity between people. Robledo and Donnellan (2016, p. 46) wrote:

'relationships are not based on the supporter's power, control or authority; supporting the labelled individual's effort to communicate; and support within inclusive environments; as well, support is most effective when it is collaborative, consistent and flexible'.

Robledo and Donnellan (2016) propose that how support is understood and arranged is a fluid transaction between people and their social context rather than an interactional exchange. When what is understood about a person is a collaborative, co-constructed process embedded in a transactional relationship, there is a shift from an interactional

worldview of hierarchical relationships to the transactional world view (Rogoff, 2016). For autistic individuals, being understood and responded to within a transactional relationship creates the opportunity to be heard. A move towards co-constructed learning, where teachers and TA's have an opportunity to develop greater insight into the thoughts, ideas and affective responses offered by autistic individuals through transactional activity, appears inviting, and steps away from categorical thinking based on normative assumptions and objective measurements of ability, such as academic performance. Indeed, Milton (2014), an autistic scholar, has noted that :

'In the history of autism studies, expertise has been claimed by many differing academic schools of thought, practitioners, parents, quacks and so on. Yet, the one voice that has been traditionally silenced within the field is that of autistic people themselves'. (Milton, 2014, p800)

Thus, the dynamics which influence how experiences are structured, are significant aspects for study within the field of autism. These might include, for example, the decisions senior leaders make on staff deployment and how different classroom roles are understood and acted upon by teachers, TAs and pupils, along with how an individual experiences of being a community member.

Studies of lived experience, described as 'neglected' by Milton (2014), calls for a theoretical shift from psychological domains. With regard to education, Mottron (2017), an autistic scholar, has challenged the dominance of solely positivist studies of human experience that emphasise deficit in social and learning ability. He has advocated for a shift to more interpretivist studies of autism and autistic individuals to explore the realities of neurodiversity, such as the lived experience of participation, behaviours and shaping practices:

'The aims of autism science are still normative and normocentric, from suppressing autism itself to mimicking non-autistic social behavior... An acceptance of autistic humanity begins by changing targets, methods, and efficiency variables of the education offered to autistic children, in favor of a strengths-informed education'. (Motttron, 2017, p823)

Motttron (2017) has identified that the influence of wider community values and beliefs is significant to how activity is structured, relationships are arranged, and individuals are responded to; how autism is constructed, construed, and responded to within classrooms needs to be understood within the wider school context and across the political-educational sphere.

Different epistemic beliefs shape the way autism is regarded and responded to within a community and by individual members; in turn how an autistic individual experiences community membership is founded in the dominant discourse of their setting and the values, beliefs, and experiences of different community members, such as school staff in different classrooms. For example, a neurobiological perspective individualises and pathologises autism as a deficit in brain function; in contrast, within neuroscience, autism is framed as a functional variation of the brain and social responses where autistic behaviours are understood as being purposeful and valuable activity - for example, in the case of echolalia (O'Dell, Bertilsdotter Rosqvist, Ortega, Brownlow, and Orsini, 2016). In turn, within education the cultural values of the community and how teachers integrate these with their beliefs and pedagogical practice influence the experiences of learners. A sociocultural approach to education needs concomitant appropriate research that is not yielded within the 'traditional' ways of seeing autism, such as in critical autism studies of O'Dell *et al's* (2016); sociocultural studies, for example Ochs, Solomon and Sterponi (2005); and techno-rationalist approaches to education in relation to autistic learners (Wood, 2018). There is, then, a place for creativity in research that allows the dynamics in social participation, practices, and experience to be captured and which recognises the fluidity of cultural practices adapted to different social contexts and enacted in repertoires

of practice and participatory appropriation (Rogoff, 2005) – for example how adults and young people relate to each other in educational settings.

Rogoff (2016) argues that the dominant worldview of a community influences the values and understandings its members subscribe to. How autism is framed, such as an individual's deficit or difference in interaction and communication, is transmitted in discourse, and cultural tools become legitimised in professional, academic, and daily language – for example, through the media and through educational policy. What is understood about the purpose of education influences teaching approaches and learners' experiences, such as the neoliberal focus on academic performance outcomes for economic purposes reflected in national league tables of schools performances (Humphreys, 2017). Different worldviews, aligning to different paradigmatic perspectives of learning (such as the cognitive-developmental or the sociocultural), thus offers alternative ways of understanding the lived experience of being autistic; provides opportunities for transforming historical understandings of autistic deficit; and informs reflection on policy and social practice. For example, O'Dell *et al's* (2016) examination of different cultural discourses on autism within their multi-national research team, identified that cultural context and epistemic community influenced how autism was understood, responded to, and experienced. Dialogic studies on the interactions of autistic individuals as they participate in activity with others have identified their capacity and competency for sense-making and co-constructing knowledge – such as in education settings (Conn, 2015) and clinical experimental contexts (Korkiangas and Rae 2016).

My review of studies investigating activity such as communication has made it apparent that detailed focus on what is happening 'in-the-moment' is important to capture. For example, the study of Ochs, Solomon and Sterponi (2005) on child-directed communication identified that opportunities opened up for an autistic young person to communicate and express his capacities and knowledge when others altered the structure of interactions and did not merely follow accepted cultural expectations. Adjustments included changing body position – for example, from face to face to side by side; and providing augmented communication – such as using visual symbols. The

outcome of challenging accepted cultural practices and creating alternative options using a participation framework was the generation of new understandings and the removal of social and curriculum barriers which had been experienced by community members.

Stribling, Rae and Dickerson's (2006; 2008) studies also investigated communication and interactions of autistic individuals. These were within specialist education settings and focused on the micro communication style and interactions of autistic pupils with severe learning difficulties or an Asperger's profile in specialist settings. The evidence of both their studies highlighted patterns and functions of verbal and non-verbal communication within conversations. This suggested that within limited speech, autistic individuals maintained interactional competency which was not initially apparent until scrutinised by the researchers. Thus what is perceived as competency by others, and how it is measured, is significant to what is understood about an autistic individual and how they are responded to during interactions. Just as with De Jaegher's (2013) account of the embodiment of autism using an enactive lens, Stribling *et al's* (2006; 2008) studies add to the challenge of traditional understandings of autism; how autism is understood, and autistic individuals are responded to is determined by the paradigm of researchers and worldview of a community. Alternative perspectives which challenge traditional conceptualisations of autism as a disorder embedded in deficit cognitive, social and communication abilities are important. The lens that informs understandings, such as the lived sensori-motor, social and affective experiences of being autistic (De Jaegher, 2013) provides opportunities for both individuals and communities to transform their understanding, awareness, responses to, and practices around autism and autistic individuals.

As highlighted in the studies above, autistic individuals have been found to respond to social referencing cues (Rogoff, 2003), such as voice tone, volume, and bodily gesture in triadic interactions. This suggests that their competencies in social orientation can be misinterpreted or overlooked when only one aspect of performance, such as socio-

cognition, is assessed (Korkiangas and Rae, 2016). Yergeau (2011), reflecting on the perception of autism as a medical, deficit condition, wrote:

‘The autist, as medically constructed, is self-focused, a two-pointed rhetorical triangle floating outside the context bubble. And yet such a stance on autism and audience awareness is itself autism and audience unaware’. (Heilker and Yergeau, 2011, p494)

It is apparent that how autism is conceptualised has an influence on what is understood about it and how autistic individuals are responded to. For example, autism as a neurological disorder is a conceptualisation derived from cognitive psychological and more recently neuroscientific paradigms (Milton, 2012). The implications of such a paradigm perspective are not only in the way autism is generically understood and responded to, for example in policy, but also in relationship and activity adjustments and specific approaches arranged to respond to an autistic individual’s interaction, communication, and information processing profile. Rather than being seen as the ‘object’ of research – with ASC being seen as a deficit – the shift in attention paid to the experience of ‘being autistic’ has begun to reframe ASC as a difference in a neurodiverse social world.

One of the consequences of a shift in perspective is that people with autism have been the researchers and reporters, producing a range of authentic first-hand accounts of different perceptions of the world and relationships, for example Lawson (2003; 2006; 2017). This shift in knowledge base is important to transform policy, practice and participation, such as where being autistic has led to feelings of isolation in social settings, for example school (Sainsbury, 2009; Jackson, 2003), or where a different perspective on an autistic individual’s behaviours has enabled agency in new understandings and adjustments to be made - for example, Conn’s (2015) study of Kyle. Guldberg (2017) writes:

‘The issue of agency is a crucial one in that it highlights the need to introduce methodologies that position not only teachers, but also individuals with autism and their families at the centre of inquiry and knowledge. This can enable research to be both practical in terms of day-to-day practice and modifiable to meet diverse pupil needs’

It has become apparent from reviewing the studies above, that a focus on one aspect of activity, such as spoken conversations and conversational analysis, does not allow consideration of the wider context of social structure, organisation and arrangements influencing participation in activity. These need to be considered in terms of the influence these have on the development of relationships and agency, and shifts in community membership (Rogoff, 1995; 2003). Positivist educational research into autism has traditionally focused on interventions and their effectiveness in mediating autistic individuals’ skill and knowledge development and/or enabling others to better understand their needs (Guldborg, 2017). In contrast, Guldborg (2017) argues for participatory approaches which draw on the lived experiences of participants and consider the influences of context, activity and experience on participation and sense-making activity.

Guldborg, Achtypi, D’Alonzo, Laskaridou, Milton, Molteni and Wood (2019) suggest that the capturing of individuals’ stories within a community of learners is important as a tool for reflecting on the experience of membership and planning for development. The insight gained from how lived experiences are construed within the structures and arrangements within a setting thus offers the researcher the opportunity to focus on different aspects influencing ‘in the moment’ activity as a starting point for transforming participation. For example, Braun, Maguire, and Ball (2010) identified staff who described their professional relationships as supportive and positive, perceived themselves as ‘confident educators’ (Braun *et al.*, 2010, p 558). Perceptions school staff had of their professional relationships, both within the school community and also the wider education community, such as the Local Authority and Ofsted, had an important influence on how they identified their own abilities and professional status. Braun *et al.*’s study highlighted the significance

of an individual's perception of themselves as an educator influenced how they implemented policy into their practice, Braun *et al.* (2010, p 558) found:

‘there is a sense among staff that policy demands – whether generated externally or internally – have to be acted on to avoid negative repercussions for the school’

The findings from their two case study schools indicated that cultural and traditional values which formed school ethos, and the personality and sense of agency of policy writers acting within it, influenced staff perceptions of themselves as professionals. The professional agency teachers felt they had to challenge, adapt, and generate alternative practices appeared embedded in the interplay between structure, organisation, and personal attributes. This invites further investigation on the influence of these dynamics on transformation, and within this current study, the influence of plane dynamics on an individual pupil's experience of community membership.

In contrast to the ‘standardised’ approaches, theories, and tools of psychological domains (e.g. DSM V, APA, 2013), Rogoff (2003) offers an alternative concept of diversity. Rogoff's (2003) studies of different cultures positions each individual as a unique member of their community established by their authentic experiences. It is these experiences that shape an individual's development, participation and how they identify as a member of their community. Thus, reconceptualising development challenges the relevance of clinical diagnosis to ‘everyday’ functioning during ‘in-the-moment’ activity and relationships. For example, this may occur when a person with autism becomes distressed because an unexpected change in the school timetable is introduced. This distress would never emerge if it were not triggered by a particular event. This suggested that it was necessary to ascertain the learning tradition of Joe's community to understand his participation in it.

The value of context-embedded research is in its relatedness to participants and the opportunities that findings provide for bringing about change in beliefs and practices. This has been highlighted in the study of Kyle (Conn, 2015a). Biesta, Priestley and Robinson (2017, p39) describe the influence a 'stock of knowledge' has on the choices teachers perceive they have available to them for their classroom practices. This knowledge base is accumulated from theory, teaching practice and experiences, such as CPD and out of school activities:

'practices are not just the outcome of teachers' judgements and actions, but are also shaped by the structures and cultures within which teachers work' (Biesta, Priestley and Robinson, 2017, p39)

Thus, understanding the dynamics between context, culture, roles, relationships, and the individual on decision-making and action-taking is important for reflecting on what influences experience of membership. Relationships, environmental and organisational considerations have been identified as important aspects which colour autistic pupils' mainstream school experiences (Saggers, 2015). School cultures offering appropriate and individualised responses, acceptance and understanding of diversity, flexibility in learning spaces and evidencing knowledge, and nurturing peer and adult relationships were perceived as yielding more positive experiences of secondary schooling for autistic pupils (Saggers, 2015). In contrast, classroom activity where there is a close relationship between teacher talk and focus on literacy knowledge and skills, accords significant value to curriculum literacy and its assessment (Osberg and Biesta, 2008; McGuire, 2013) This does not allow for attention to the different needs across the neurodiverse range of community members as required by the Special Educational Needs Code of Practice (DfE and DoH, 2015). The focus accorded learning as a sense-making process and knowledge as being co-constructed during transactional activity provides a means of assessing progress which is an alternative to a focus on curriculum skills and knowledge (Guldborg et al, 2019).

Osberg and Biesta's (2008) discussion of the guiding role of the curriculum in the education process, identify it as *'the 'mechanism' for the process of education'* (Osberg and Biesta, 2008, p601). This positions the curriculum as central to the knowledge that is required to achieve the testable outcomes which determine success/failure of learning. The priority accorded the assessment of outcomes highlighted by Osberg and Biesta (2008) is a concern when education is conceptualised as having an economic market value (Pratt, 2016). This might be, for example: the evidence pupils' results provide of an individual teacher's ability 'to teach' in comparison to colleagues; of a school's position in 'league tables' at a national level; of a country's academic profile across a global market. The 'risk' that is posed by the pursuit of economic value and individual competition, such as between pupils, between teachers or between schools, is that in this drive for standardised comparisons, flexibility, creativity and individuality is replaced by rigid pedagogy and a narrow curriculum and assessment framework (Humphreys, 2017):

As a consequence, it struggles to respond to non-standard learners or promote a vibrant, participatory democracy and, is the very antithesis of deeper personalisation agendas. (Humphreys, 2017. P42)

The centrality of assessment outcomes in education activity that is apparent in a system governed by neoliberal priorities of academic performance as economic capital (Humphreys, 2017), aligns with Rogoff's (2016) proposition of an interactional worldview and assembly line learning tradition where information is given to apprentices by experts. Within both the neoliberal and interactional conceptualisations of education, the learner becomes the recipient of knowledge given to them by a more knowledgeable community member; this knowledge is purposive to the curriculum and a standardised measurement of an individual to re-produce this information in a specified format (Rogoff, 1995). This is because each seeks standardised and normative ways of being (McGuire, 2013) - for example, as an individual and as a community member. Therefore, the activity and relationships that take place within a context and between people can be examined through different lenses to explore the influences of context and experience on individual and community actions and discourse – for example the institutional, interpersonal and

intrapersonal planes proposed by Rogoff (2003). When a diagnosis highlights inherent differences between autistic and non-autistic individuals (APA, 2013), the concern is raised on the ability of a neoliberal system to respond in flexible, creative and individualised ways. In contrast, when the curriculum is considered as a creative space that offers equivalent options, such as vocational courses and qualifications, differences between people become valued whilst also fulfilling traditional practices of formalising assessments (Humphreys, 2017). Thus, by creating possibilities and alternative trajectories, the diversity of experiences, strengths and challenges between people becomes valued (Osberg and Biesta, 2008).

Moving from quantitative to qualitative data production, and methods which engage participants to invest in research which is more meaningful for them (Guldberg, 2017) calls for a shift in perspective that challenges not only traditional understandings of autism but also the purpose of education. This leaves a place for researcher-practitioners in shaping the generation of new knowledge founded in lived experiences and daily realities, and addressing questions such as why some social practices go unchallenged so that individual pupils' needs become 'lost'. Practitioner engagement and reflection within the research process thus offers unique cultural insight into experiences of community membership and leads to studies that bridge the gap between theory and practice.

2.2.1 Exploring participation using a sociocultural lens.

The contrast between the 'fixed' medical and 'pliable' sociocultural conceptualisations of 'difference', and the way adjustment to 'difference' is expected in educational settings that can be seen in national education documents such as the *CoP* (Great Britain. DfE and DoH, 2015), supported a sociocultural based study which could explore school policy, practice, and classroom responses to Joe as a pupil with SEND. For example, was he being perceived as different from or similar to his peers of the same chronological age? I was interested to explore how a diagnosis of autism and having an EHCP made a difference to the organisation of classroom activities and responses to Joe. I also wanted

to explore what Joe understood about himself as a member of his community of learners from his experiences of his mainstream lessons. For instance, did he consider having a diagnosis of autism relevant to his participation in learning and relationships during curriculum activities?

Rogoff's (1995; 2003; 2005) concept of the transformation of participation within sociocultural theory explains how experiences shape thoughts and actions as a result of cultural and interpersonal transactions. Thus, how a person participates in activity is changeable and transformative because of continual interactions between the individual and others within the different contexts a person is part of. Participation is then always active, regardless of how this may appear, because during 'eavesdropping' (Rogoff, 2005, p.13) an individual is interpreting meanings. 'Eavesdropping', as observation and listening in activity, occurs for example during conversations between other people, as well as when participating in a conversation with a partner, collaborating with another in physical activity and such like. Experiences of community activity therefore provide opportunities for an individual to interpret the meanings being transmitted as they participate in different endeavours. Meanings may be tacit or explicit - for example, inferred through artefacts and resources such as books or given directly in verbal instruction. It is then the opportunities and resources that are available to a person, which are fundamental to their development of participatory appropriation, that guides what they understand from others' responses, and how they express this in their patterns of responses, that Rogoff, Moore, Najafi, Dexter, Correa-Chavez and Solis (2005) describe as repertoires of practice.

Rogoff (2003, p52) describes the transformation of participatory appropriation and repertoires of practice that an individual experiences from their participation in cultural activity as '*a process of people's changing participation in sociocultural activities of their communities*'. Here Rogoff suggests that the roles, responsibilities, and type of activity that an individual has access to within their community's learning tradition, evolve as they become more experienced and competent within the activities prioritised within their

community. For example, formal schooling and the standardised assessment of school children's curriculum knowledge that is examined in national tests, is distinct from the adult world of employment and the specialised knowledge and skills of different workplaces. Thus, it is how a community responds to the wider historical-cultural values about child rearing practices that influences how relationships are arranged and activities are organised.

What a community considers as 'mature activity' reflects its historic values and practices that former generations have accorded adulthood (Rogoff, 2003). This guides members as they learn about the purpose of activity and shapes their development and participation through the roles and responsibilities accorded to their membership. An example might be the steps adults organise on a child's journey to becoming a more responsible, skilled, and knowledgeable member of their community (Rogoff, 2003;2005). Through a system of apprenticeship, each experience is then a transaction that provides the opportunity for development, because the process of interpreting meaning requires a person to modify, disregard or replicate what they have learnt in relation to the feedback they are getting within their current situation. Thus, my reading of Rogoff's (1995; 2003; 2005) corpus of literature suggested that 'repertoires of practice' is a theoretical construct relating to actions and discourse that can be observed in activity and relationships and which provides the opportunity to explore individuals' participatory appropriation. I was interested in Joe's participation in the classroom and how this was shaped by his experiences of transactional activity. Given that context, activity and experience are key sociocultural features of how individuals negotiate individual and cultural values which determine the position and action people undertake in activity (Rogoff, 2003), observation of activity and relationships that occurred in-the-moment during lessons provided data for the basis of participant interviews. My observation and interview data, therefore, provided rich, contextual and relevant information to explore the interplay between the community, and the social and personal domains, to investigate how Joe was being understood and responded to as a member of his learning community. It also enabled a consideration of the relevance of his diagnosis of autism within his lesson experiences.

Rogoff (2003; 2005) has highlighted how the interplay between cultural, social, and personal values influences an individual's role in activity and relationships within their community. Given autism is diagnosed when persistent difficulties in interpreting and responding to the interaction and communication of others is identified as being present across different contexts (APA,2013; Attwood, 1998), this clinical position defines autism as inherent and a deficit, the severity of which influences how much support is considered necessary for the autistic individual to be able to participate in everyday life. However, the sociocultural studies of Conn (2014a; 2014b) have identified that the 'lens' used by the observer is where the difference lies. The different paradigm positions create a tension between what is understood about an autistic individual in the clinical setting and the lived experience of negotiating a relationship with a person with autism in the context of a school lesson. Thus, to identify the factors that shaped Joe's participation in the classroom, I conducted a literature search with these specific objectives in mind. This included surveying the literature to establish the opportunities available for supporting his learning to transform his classroom experiences.

2.3 Refining the search strategy

To specifically address the research questions and to more deeply interrogate the relationship between theory and practice, I augmented my broader reading of the literature related to relevant theoretical paradigms with a more specific and targeted search for relevant published research studies (see methodology, chapter three). Six main categories emerged from this targeted literature review. These provide the framework for the remainder of this chapter. Each subsection below discusses the material and issues in one of these six categories.

The categories refer, respectively, to:

- Context, experience, and transformation of participation, within a sociocultural paradigm
- The influence of overarching community values and priorities on the organisation of classroom activity and relationships in Rogoff's concept of the transformation of participation in cultural activities.
- Teachers' perceptions about themselves as professionals as they negotiate what they are required to do as teachers in the school.
- The influence of cultural priorities on what is understood about autistic individuals in classroom activity and relationships.
- SEND policy and deployment of TAs as a response to autistic pupils
- Autism as 'a special need'

2.3.1 Context, experience, and transformation of participation, within a sociocultural paradigm

In contrast to the medical models implicit in the diagnosis of the "autistic child" based on 'normative' criteria, the sociocultural approach of this study recognised human activity derives from a genetic and biological predisposition to learn from social participation that means all activity has a social basis (Rogoff, 2003). The theories of development taken from cognitive-developmental paradigm focus on the individual, innate possibilities or deficits, and position autism as 'outside' of developmental 'expectations'. These are inadequate explanation of the varied lived experiences of schooling described to me by the young people with whom I worked prior to initiating this study. A singular and biological explanation had provided insufficient account of the vast differences in autistic experiences, and highlighted that context and activity also needed to be considered. In comparison to the cognitive-developmental paradigm, the sociocultural perspective suggests that development occurs in the relationships between people and the way activity and relationships are organised. The sociocultural paradigm therefore offered a more dynamic explanation of what shapes autistic experience through the attention it gives to group and context dynamics. I thus turned to the sociocultural theorists.

The sociocultural theories offered by Vygotsky (1978), Lave and Wenger (1991) and Rogoff (2003) all offered explanations on the 'human development' of knowledge. Review of the theorists' literature made the influences of context, adult-child relationships, and experience in activity apparent. It was because of these commonalities that I specifically explored:

- a. **Context:** what is being understood by participants about the cultural purpose and function of the space where activity takes place.
- b. **Activity:** the types of endeavours that take place, how these are organised, and the ways people participate that is observed in their actions and their responses.
- c. **Experience:** what a person describes and understands about community membership from being a participant in shared endeavours.

Each aspect outlined above was explored and considered in relation to schools and classroom activity that were the concerns of my study. I now discuss this interplay between context, activity, and experience and how it influences approaches to diversity within transactional activity. I consider the fundamental place activity has on academic and social learning and personal development, in the sociocultural theories of Vygotsky (1978) Lave and Wenger (1991) and Rogoff's (2003) concept of transformation in participation.

Vygotsky's (1978) insight into the shared endeavour of academic learning makes an important connection between biology and lived context. Vygotsky's sociocultural position highlights learning as an organised activity of transactions shaped by the relationship between people. Pertinently, Vygotsky argues the transactions in an asymmetrical relationship between a more and less 'able' person transforms knowledge. The experience of activity with another person makes the transfer of knowledge initially social and subsequently psychological (Vygotsky 1978). This compares with the position

espoused in cognitive-developmental psychology where inherent cognitive disposition determines the way a person can, or not, manipulate mental representations to alter their thoughts and actions.

Vygotsky's (1978) theory highlighted the central tenets of experience and relationship dynamics in learning where more experienced members guide an organised activity so that it extends the learning of a less experienced member. Learning occurs as the lesser experienced individual moves from their actual development, that is what they can already do independently, to what can be achieved with support, which is their potential development. The distance between actual and potential development was conceptualised by Vygotsky as the 'Zone of proximal development' (ZPD). The transactions that occur within the ZPD are then fundamental for challenging and modifying thoughts, ideas, and understandings. Vygotsky's theory highlighted how teachers present information and organise activity is important. How pupils engage, participate, and perform are dependent on what teachers interpret about individual pupils and what they are using to inform their judgements - for example, lesson objectives and comparisons with peer group members.

Diagnosis had already determined Joe as an individual who 'fell outside' of 'normative' developmental trajectories in social interaction, communication, and information processing (APA, 2013). Given Rogoff's (2003; 2005) concept suggests negotiating community values and practices with personal experiences of activity and relationships are fundamental to learning and participation, Vygotsky's (1978) conceptualisation of ZPD was limited; it did not consider what could be guiding participatory appropriation and subsequent repertoires of practice. Thus, with a diagnosis of autism being made within a cognitive paradigm, and the framing of autism as an interaction and communication need within the *CoP* (Great Britain. DfE and DoH, 2015) and Joe's school's SEND policy, it was important to interrogate Joe's experience of being autistic in his mainstream lessons and explore the institutional and intrapersonal influences guiding his teachers' responses. These ideas informed the first of my research questions.

2.3.2 Participation in activity

The attention Vygotsky (1978) gave to the organisation of relationships as an alternative explanation to cognitive psychological paradigms of learning, was developed within Lave and Wenger's (1991) 'situated learning theory'. Lave and Wenger widened the scope of learning as a mutually construed process between context and experience guiding how people participate in the various social contexts, such as home/school settings. What an individual construes about their own and others' membership, and their role in activity, can be examined in their actions and discourse practices. Wenger-Trayner (2016, p147) explains identity as:

The construction of sameness through change – the work of being an enduring entity through time and space. And it brings an identification, which is a relational process by which the world and the person can enter and constitute each other.

Wenger-Trayner (2016) positions identity as an interplay between an individual and their community and the place a person occupies in activity and relationships: for example, the values a community has established over time and the contribution this makes to its particular needs or ways of doing things. The process of an individual's transformation in membership is constituted from the common understandings established and shared between people in a particular community, and changes the ways an individual participates in activity - for example, the role they take as a leader/follower. Whilst Wenger-Trayner's explanation allows for membership of multiple communities, Rogoff's (2003;2005) explanation conceptualised the institutional, interpersonal, and intrapersonal lenses as planes to spotlight specific aspects of the influences guiding membership and participation. Her conceptualisation of participatory appropriation developed from individuals' experiences of multiple contexts, illuminated the plasticity of repertoires of practices that reflect the priority an individual accords their own, or others', experience within their current context. My study examined Joe, his teachers and TAs' repertoires of

practice and their participatory appropriation in relation to the responses that were made to him as an autistic individual participating in the same curriculum activity as his peers.

Wenger-Trayner (2016) also developed the concept of a 'community of practice' as a domain where the purpose of activity and the competences prioritised around it, carry similar values and meanings for its members. For example, Rogoff (2003) and Edgar (2012) identify that curriculum knowledge is particularly valued in Western schooling, and exam results reflect competence in this specific knowledge. Lave and Wenger (1991) explain that, in a community of practice, each participant is at liberty to invest as a member of a specific 'system' through their legitimacy to be within it. This could apply, for example, to a school where its children and teachers are legitimate members of a school community. The relationships between people in their community are centred on how close or distant their responses are to the competences that bind the community together. Within a classroom, for example, responding to 'known-answer-questions' (Rogoff, 2005) is used by teachers to 'test' the knowledge pupils have about the curriculum, and what else they need to know that is established in syllabi. Pupil correct or incorrect response then indicates where a teacher judges them to be on a transformative trajectory of membership from 'apprentice' to 'expert' in relation to the context of activity, such as GCSE qualifications. When Lave and Wenger's (1991) concept of community of practice, which is recognised by its particular purpose, practices, priorities and the roles and relationships between people, is applied to Rogoff's (2005, p18) concept of an assembly-line learning tradition, teachers are positioned as more experienced than pupils as regards the specific knowledge that students are expected to gain at school. Within Lave and Wenger's position, meaning making is embedded in, and specific to, 'communities of practice'. In this way learning is 'situated' and specific to contexts.

Mainstream, local authority schools in England, such as Joe's, can be considered as a domain within Lave and Wenger's (1991) conceptualisation of 'communities of practice'. This is because they share an obligation to implement legislation, such as the *Equality Act* (Great Britain Parliament. House of Commons, 2010) and the *Children and Families*

Act (Great Britain Parliament. House of Commons, 2014), and are framed by particular 'ways of thinking'. For example, they apply theories of learning and make explicit what is valued as necessary knowledge and how this is assessed to evidence the ability to learn specific information. Within the *Children and Families Act*, schools have a duty to implement the *SEND Code of Practice* (Great Britain. DfE and DoH, 2015; 6.36) which is particularly pertinent to my study because of Joe's diagnosis and EHCP 'status'. My study sought to investigate how Joe's teachers were responding to their obligations. This informed my second research question.

The theories of Vygotsky (1978) and Lave and Wenger (1991) offered a framework by which to gain insight into the role of relationships and competences in contexts and interactions to shape the development of repertoires of practices and individuals' participation. However, Vygotsky's focus on instruction in classroom activity, and Lave and Wenger's spotlight on a time/space dimension in identity development and community membership lacked the focus on the interactions between people and the influences guiding these that was of specific interest to my study. Given Joe's EHCP identified him as having a specific communication and interaction need, how he was being responded to was a unique focus of my study. I needed to consider the sociocultural processes, such as the ways teachers were negotiating the curriculum in the light of pupils' individual differences and the learning tradition of the school, to interrogate how others' responses were guiding Joe's experiences. I therefore explored the cultural work of Rogoff (1995; 2003; 2005) to gain deeper understanding of participation in community activity.

2.3.3 Transformation of participation

Rogoff's (1995; 2003; 2005) studies showed that within different cultures and specific social contexts, participants organise their relationships and activities around what they define as '*mature endeavours of daily life*' (Rogoff, 2005, p13). Her studies showed three

different ways that adults organise children's access and participation in mature activity. In '*intent participation*' (Rogoff, 2005, p13) children are present and involved in community activities; in '*assembly-line*' (Rogoff, 2005, p18) learning traditions, children's activity is decontextualized and separated from adult life; in '*guided repetition*' (Rogoff, 2005, p22), a more experienced community member models and supervises an apprentice to imitate and memorise knowledge and skills of competence in activity that occurs -, for example, in reciting religious texts. The values and practices inherited by a community then influence the access children have to adult activity and the goals of development that shape children's acquisition of the skills and knowledge required in adulthood.

Rogoff (2003) suggests that what is prioritised as a 'goal of development' by a community, also shapes its sociocultural practices. Compulsory schooling is an example in the UK of a sociocultural practice that is centred on young people gaining formal educational qualifications in preparation for adult working life. Historically, school activity has prioritised standardised assessments as evidence of academic achievement (Edgar, 2012) that reflects a particular 'way of thinking' about child-rearing where young people are segregated from adult life (Rogoff, 2003). In particular, she noted that historical ways of 'thinking' and 'doing' manifest as 'assumed cultural practices'. In an assembly-line learning tradition this means most children are segregated, by a period of formal schooling, from the mature activities of adulthood (Rogoff, 2003, p 241) such as paid employment. This arrangement of children's activities by adults then positions schooling as a community's goal of development. Applying Rogoff's concept, formal schooling in an assembly-line learning tradition could be considered a goal of development that influences specific practices and the use of resources necessary for this development. Within my study, the policy documents, routines, relationships, and activities were regarded as specific community practices and resources that reflected Joe's community of learners' responses to formal schooling. For example, the timetabling arrangements organised by senior leaders determined the time allocated to lessons, and were produced as a timetable document resource, to be followed as a practice by staff and pupils.

The cultural practice of formal schooling and how this is organised by leaders in schools as a community practice has implications on classroom relationships and activity and how these are experienced by adults and young people. Actions, discourse, and material resources are cultural tools developed within a community's practices. Cultural resources and tools influence the ways people co-construct their membership, understandings and knowledge and shapes their development of repertoires of practice and how they participate in activity (Rogoff, 2005). For example, within schools' teachers' subject knowledge and the way they present curriculum information positions them as 'experts' in comparison to children as 'apprentices' with lesser knowledge and skills about the curriculum. Within this relationship teachers are responsible for recognising and adjusting the approaches they use within the range of abilities of the pupils in their class (DfE and DoH, 2015). It is what pupils have learnt from this material that is assessed as their academic standard in examinations. There is then a clear dynamic flowing across the institutional, interpersonal, and intrapersonal planes that is influenced by the priorities established in the actions, discourse, and material resources of Government and how these cultural tools are interpreted and implemented by school staff as community practices within the wider school context as well as individual classrooms. My study examined Joe's experience of five mainstream lessons and his teachers' responses to their obligations and experiences as they interpreted school policy documents within their classroom actions.

Rogoff's (2003) conceptualisation of the different planes and their influence on development challenged my initial research questions. The responses to Joe in the classroom were an area of investigation in my study. This necessitated a consideration of the influence of the learning tradition that is the institutional plane, and the ways this was negotiated in relation to the collective experiences of Joe, his teachers, and his TAs. My reading of Rogoff *et al.* (2005) alerted me to consider the interplay between the planes and how these guide adults' responses to give Joe a 'voice' about his experience of being autistic in mainstream classes. This led me to re-think my initial research questions. My revised questions became:

RQ 1: *How is one autistic child's classroom experience shaped by understanding of the autistic individual in the intrapersonal, interpersonal, and institutional planes?*

RQ 2: *What experiences does an autistic pupil (Joe) have in five classrooms within his secondary school?*

RQ 3: *What dynamics and practice are operating in the intrapersonal, interpersonal, and institutional planes that shape Joe's lived experiences?*

2.3.4 The influence of community values and practices

The institutional plane houses the overarching worldview (Rogoff, 2016) of values and practices of a community that provides the wider cultural context for activity which takes place in the interpersonal plane (Rogoff, 2003). For UK schools, educational attainment, particularly that assessed by exam results, is a particular goal of development that carries social expectations of success/failure based on set and standardised criteria (Edgar, 2012) and behaviours that promote or disrupt achievement which appears particularly problematic for autistic pupils (Allan and Youdell, 2017; Hay and Winn, 2012; Emam and Farrell, 2009).

Historically, the organisation of relationships and activities in Western education has grouped pupils by chronological age and prioritised adult knowledge and authority over that of young people (Rogoff, 2003; Edgar, 2012). Education practices, such as the grouping of pupils by chronological age, age organised assessments and public examinations, emphasises the value accorded individuals in competition with peers (Rogoff, 2003) which suggests a neoliberal (Pratt, 2016) and interactional worldview of the process and purpose of education (Rogoff, 2016). In relation to my study this is

particularly relevant to Joe's school's practice of setting by ability in standardised literacy assessments. The organisation of the curriculum by Government, for example, the *National Curriculum [in England: framework for key stages 1 to 4](#)* (Great Britain. DfE, 2014), also establishes the specific knowledge and skills that will determine the grading of pupils' competence in these from formal, national assessments. This has positioned teachers with a greater authority, responsibility, and accountability within the socio-cultural organisation of classrooms (Rogoff, 2003).

Within a school system that has prioritised academic exam performance (Spielman, 2017) it is apparent the values teachers demonstrate in their repertoires of practice have been negotiated with their experience, such as training, personal and professional encounters, and the values of colleagues and leaders in their setting (Buchanan, 2015). Given that what teachers understand about individual pupils influences how young people experience classroom relationships (Bodrova, Leong and Akhutina, 2011), and how they are responded to (Conn, 2014b), teachers' repertoires of practices in their classroom actions becomes central to the opportunities pupils have to transform their subject knowledge. Thus, within Rogoff's concept of the transformation of participation in cultural activities (Rogoff 2003, p.37), as teachers work towards specific curriculum outcomes, the choices a teacher perceives they have, and what they demonstrate in classroom actions and discourse, is negotiated in reference to their experiences and context. This influenced my third research question:

RQ 3: What dynamics and practice are operating in the intrapersonal, interpersonal, and institutional planes that shape Joe's lived experiences?

Rogoff (2003) has noted that when an individual's experiences are out of alignment with those of their wider community, how they resolve this tension determines the actions they take. Crucially it would seem that how teachers negotiate the priorities and values of their context with their pedagogical knowledge, and lived personal and professional

experiences, has a significant influence on pupils' experiences of the way goals are achieved. In particular for Joe, his teachers' professional and personal experiences of autistic individuals, and in particular how they viewed Joe as a member of his community of learners, became important to the actions they took. This in turn influenced how Joe experienced his mainstream classrooms. Given this, it was what teachers did and the reasons they gave for their actions that was particularly relevant to my study:

'teacher educators fall short of understanding pedagogy when they treat it as synonymous with methods and techniques, a collection of decontextualized practices – best practices – described as a series of steps that can be handed from one teacher to another like so many tools in a kit' (Jenlink, 2014, p82)

Jenlink (2014) suggests that when pedagogy becomes established as uniform practices applied ubiquitously to all pupils, meeting the social and academic diversity of pupils becomes difficult, particularly in relation to interaction and communication differences. In short, the rigorous application of ideas grounded in a theory that does not account for the realities of human experiences, or includes differences and similarities, will always be at the cost of some pupils' transformation. This implies that teachers should reflect on the individual different 'needs' of pupils and feel confident about adjusting teaching approaches around these (Alan and Youdell, 2017). This warranted a review of the influences shaping Joe's teachers' classroom actions and their understandings of his autism that has been categorised as SEND. This informed my first amended research question:

RQ 1: How is the autistic child's classroom experience shaped by understanding of the autistic individual in the intrapersonal, interpersonal, and institutional planes?

Altan and Farber Lane (2018) investigated the relationship between teachers' confidence from 'significant life experiences' and their classroom practices. Their narrative account

suggested teacher confidence influenced the effectiveness of classroom approaches; teachers who were more confident drew on their personal experiences and used these to relate learning to young people. Altan and Farber Lane (2018) also proposed that 'habits of mind' originate in personal learning experiences in the different contexts of school, family, and neighbourhood. Habits of mind were classified as personal attributes such as resilience, creativity, open mindedness, and ability to cope with change. They found teachers' confidence to organise pupils' learning using their own experiences of both 'intent participation' and 'assembly-line instruction' (Rogoff, 2005) enabled greater creativity and responsiveness to individual pupils than a teacher who relied on assembly-line instruction pedagogy alone. Altan and Farber Lane's (2018) study therefore suggested that teachers' accumulated personal and professional experiences influenced their repertoires - for example, how they presented lesson information.

Altan and Farber Lane's (2018) research also suggested that teachers' confidence to use both their personal and professional experience during classroom activity had a significant influence on pupil development and participation. If this is accepted, the ways teachers mediate their role and responsibilities with personal, community, pedagogical and curriculum experiences, will be reflected in their classroom repertoires. This reinforces the position of Jenlink (2014), that how teachers organise their experiences and context during in-the moment activity guides the approaches they use and the responses they give to the diversity of pupils in their classes. Teachers' responses are thus crucial to pupils' participation and progress in lessons.

The approaches and activities teachers organise - for example, child or adult led approaches\0 have clear differences in the opportunities available for young people's transformation. For Joe, it seemed that teachers' responses and confidence in differentiated approaches needed to consider his specific underlying differences in 'social literacy' as required of them within the *CoP* (Great Britain. DfE and DoH, 2015) and identified in the school SEND policy as being available for pupils on the SEN register. My study examined teachers' repertoires of practice and personal perspectives to explore the

influence of these on their responses to Joe, and in turn what he understood about himself as a community member from his participation. This necessitated interrogating the way Joe's teachers negotiated school policies and values with their own expectations during 'in-the-moment activity'. This was relevant to my third amended research question.

2.3.5 Teachers' perceptions of themselves as professionals

Teacher accountability for pupils' progress has been increasingly prevalent in education policy and legislation in the UK (Spielman, 2017), and is made clear in the *SEND CoP* (Great Britain. DfE and DoH, 2015). How teachers negotiate their professional and personal experiences with the priorities and values of their school environment influences pupils' classroom experiences (Buchanan, 2015). Within my literature review, the studies of Khader (2012); Buchanan (2015) and Harris and Graham (2019) offered differing aspects of insight into the sociocultural complexities that guided teachers' classroom practices and decisions to meet the demands of the curriculum, during in-the-moment classroom activity.

In contrast to the influence of teachers' competing demands about their role in a Jordanian school (Khader, 2012), Buchanan (2015) studied the influence of assessment changes on teachers' sense of belonging and classroom practices. Buchanan's study was an in-depth account of nine teachers' experiences across three different schools in America during the introduction of nationwide education reforms. These reforms emphasised the accountability of teachers for student success in standardised assessments. Specifically, Buchanan's sociocultural approach explored the interplay between teachers' prior personal and professional experiences on their classroom practices as they negotiated what was expected of them by school leaders during a climate of educational reforms. Harris and Graham (2019) looked at teachers' responses to curriculum change in the UK History curriculum. These studies were relevant to my research as they described the pressures teachers in different contexts faced fulfilling their duties to the curriculum. Whilst these did not consider SEND as part of the realities of mainstream classrooms, the

focus on the influence of the institutional plane provided the opportunity to examine the way teachers negotiated competing values with their classroom practices. The studies of Khader (2012); Buchanan (2015) and Harris and Graham (2019) will now be discussed.

Khader (2012) studied the values that teachers prioritise and put into operation in the classroom. Khader's qualitative case study explored teachers' beliefs in seven different domains: organisation, lesson presentation, control, and discipline, dealing with students, evaluation, and code of ethics. Data showed that teachers' ability to demonstrate the depth of their curriculum knowledge, and to set clear expectations on appropriate learning behaviour was critical to their professional identity. They made a clear distinction between themselves as adults and authority figures in their subject, and their pupils who were considered as being 'subordinate' and 'novice'.

Khader (2012) highlighted the impact on teachers' classroom roles arising from the challenges, implications and expectations related to the undertaking of additional duties such as pastoral care. This study showed that when planning time is reduced, teaching approaches become more didactic. Khader's study also showed that time demands influence teachers' classroom practices. When they perceived limited time to prepare and teach, they led activity and presented information in more uniform styles to ensure pupils had the knowledge they needed for assessments. I was interested in Khader's findings because within England, the *CoP* (Great Britain. DfE and DoH, 2015) requires the use of differentiated approaches. This in turn leads to an expectation of pupils' needs being met by teachers individualising learning activities. Khader's study findings indicated teachers did not differentiate for individual students when they felt under pressure from curriculum and time demands. Given that during my study there was a high value placed on school performance data (Spielman, 2017), Khader's findings on teachers' responses to curriculum assessment and time demands were particularly relevant, to investigating and analysing the way teachers perceived curriculum assessment demands within Joe's school.

Khader's (2012) study also illustrated teachers' responses to what they perceived was expected of them in their role. The expectations on teachers to negotiate changing demands within their role has been explored in depth by Buchanan (2015). He argues that teachers' perception of the choices they have in how they organise learning activity has a clear link to how they respond to institutional policies and practices. Given my study took place during the early years of England's reforms in both the curriculum and SEND, and that schools were expected to interpret and implement these changes, I reviewed Buchanan's (2015) investigation into teacher agency and the priorities of schools during a time of curriculum reform. Buchanan's study revealed the crucial role of support offered by colleagues and managers influenced teachers' agency:

'The culture of a school, the way it defined successful teaching and learning, and the ideological and pedagogical positions it made available for teachers mediated how teachers experienced and reacted to accountability policies. And at the same time, the teachers' own professional identities mediated how the school conditions, policies, and discourse of reform were understood and taken up. The interaction between teacher identity and school culture both enabled and constrained teachers' agency'. (Buchanan, 2015, p714)

Buchanan (2015) showed that teachers' conformist or resistant responses to changes resulted in them retaining or adjusting classroom practices. Teachers' decisions to adapt practices were embedded in their professional relationships. I studied the opportunities available to staff to share information with colleagues within the organisational structure of Joe's school as this had been important in Buchanan's study. This related to my third research question.

RQ 3: What dynamics and practice are operating in the intrapersonal, interpersonal, and institutional planes that shape Joe's lived experiences?

Harris and Graham (2019) explored teacher attitudes regarding the shift of content in the UK History curriculum. Their research suggested teacher affiliation to their subject specialism influenced how and what they taught:

Teachers' willingness to engage with changes was also related to their sense of subject identity. However, it is evident that accountability measures dominate teachers' thinking, and even impacts on what teachers choose to do in non-examined phases of the curriculum. This appears to diminish teachers' agency when creating a curriculum'. (Harris and Graham, 2019, p43)

Harris and Graham (2019) identified the significant influence accountability had on teachers' practices and classroom approaches; the greater priority they accorded accountability, the more restricted the range of approaches or topics they adopted. Given that teachers are not always confident about teaching pupils with autism (Hay and Winn, 2012; Allan and Youdell, 2017), it seemed possible that teachers' perceptions of their curriculum obligations could dominate their responses to Joe's individual needs.

The studies of Khader (2012), Buchanan (2015), and Harris and Graham (2019) provided an important insight into the different aspects that influence how teachers perceive and negotiate their professional accountability in their classroom practice. Their studies have identified that culture, policy, and support had a significant influence on teachers' practices. This finding suggested that it was important to explore this element in my study, because Joe's teachers, as adults' engaged in shaping young people's experiences, were negotiating their roles and repertoires of practice to effect their students' transformation through learning and development (Rogoff, 2005). I therefore sought to investigate the dynamics between the institutional plane, such as school policies and organisation of the timetable, and the intrapersonal plane of individuals' experiences, to examine more closely what was guiding actions and discourse in the interpersonal plane. Specifically, I wanted to examine how Joe's experience was being shaped in relation to my second research question:

RQ 2: *What experiences does an autistic pupil (Joe) have in five secondary school classrooms?*

Conn (2014a) makes the point that the priority accorded academic behaviour and achievement can overshadow consideration of a person's social understandings. In her case study of a mainstream primary school setting with a SEND resource base predominantly for pupils with learning or physical 'disabilities', Kyle was a nine-year-old boy with a diagnosis of autism. Kyle's participation in learning tasks in comparison to his peers was a concern for his teachers; in contrast, Kyle's 'social competence' in his use of imagination in play was considered by his teachers and parents to be as strong as that of his peers. It was Kyle's difficulty in switching his attention from playground to classroom activity that his teachers felt disrupted his engagement and focus on learning tasks.

Conn (2014a) investigated Kyle's social participation by observing him in activity and discourse with adults and his peers. Her findings alerted Kyle's teachers to his difficulties in settling to curriculum activity after playtime, required a different approach to enable him transition and engage with the learning tasks organised by his teacher. The new understanding of Kyle gained by staff from Conn's work initiated a change in approach and visual prompts were introduced to support him in switching his attention to the tasks in hand. The dominant leadership role that Kyle had assumed in playground activity, which had been a frustration to some of his peers, was also brought to the fore through Conn's observation. This provided the opportunity for targeted work to support these pupils to negotiate their emotions. The adjustments that emerged from the adults' rethinking of what they understood about Kyle were then important to how he participated.

Conn's study (2014a) indicates that what teachers understand about autism and an autistic individual is important. How teachers respond appears to be crucial for transforming opportunities for autistic individuals to participate. For pupils, teachers are,

in effect, cultural resources because they are part of the context of schools. Rogoff (2003, p 69) explains that:

They learn skills and practices of their community by engaging with others who may contribute to structuring the process to be learned, provide guidance during joint activity, and help adjust participation according to proficiency.

Rogoff's (2003) explanation highlights how the tacit and explicit influence of teachers' motivations, attitudes, and curriculum knowledge within the classroom, has consequences for pupils' participation in social and academic learning. Conn (2014b, p63) argues that:

'Children use the cultural resources that are available to them...for their interactions with each other, interpreting and recontextualising cultural material for the purpose of expressing their own thoughts and concerns'

Conn (2014b) shows that context, activity, and relationships serve as a plethora of cultural information for children. The classroom and the actions and discourse that take place in it are thus crucial to the opportunities an individual has to develop their thoughts and understandings of relationships as well as the curriculum. Joe's experience of classroom activity and the influence this had on his perception of himself as a community member was then a fundamental aspect to explore in my study.

The literature made it apparent that teachers' implicit and explicit repertoires of practice in the classroom were a feature of the school context that needed to be explored to understand Joe's unique profile and how he was responded to as an autistic individual or a 'member of the class'. The fluid interplay between context, activity and experience also needed to be considered to capture the dynamics influencing Joe's experiences, such as the way autism is understood and responded to in school policy and actions for SEND.

2.3.6 SEND policy and deployment of TAs as a response to autistic pupils

Whilst teachers bear the responsibility for the approaches they use in the classroom (Great Britain. DfE and DoH, 2015), they must also make decisions on the cultural resources they have available to them - for example, how they manage additional adult support. TAs, along with teachers, can be regarded as a cultural resource for pupils. Various studies have explored TA deployment in schools and classrooms in response to pupils' special educational needs: for example, Humphrey and Symes (2011), Symes and Humphrey (2012); Radford, Bosanquet, Webster and Blatchford (2013). An in-depth discussion of the findings of these studies will highlight the dynamics created by any additional adult present in the classroom.

Humphrey and Symes (2011) studied teachers' deployment of TAs in the classroom, the effectiveness and availability of training opportunities for them, and the TA-teacher relationship. This small scale, phenomenological research focused on the experiences of TAs working with autistic pupils in mainstream primary schools. Humphrey and Symes (2011) used a thematic analysis of transcribed semi-structured interviews. This revealed the ways in which TA-teacher opportunities to collaborate in planning, and the deployment of TAs influenced how confident TAs felt in the roles and responsibilities they assumed in classrooms. It was significant that TAs felt more confident with curriculum content when they were deployed as 'subject TA's'. In contrast, TAs' felt they could give pupils better support when they were deployed to work with specific young people as this enabled them to develop a more secure relationship with a young person and a deeper understanding of their 'needs'. Humphrey and Symes' study suggested that individual pupils' experiences were being influenced by TAs' curriculum confidence and knowledge about specific pupils. I, therefore, sought to investigate the influence of Joe's school's deployment of TAs on his classroom experiences.

Humphrey and Symes (2011) found that TAs distinguished between their role and that of teachers. TAs perceived teachers to be curricular and pedagogical experts while their own role was to encourage pupils' independence. For example, their role was to engage and direct the child's attention; help them to follow instructions and organise themselves for tasks; manage social/behaviour issues and enable them to complete curriculum tasks. TAs felt they were responsible for differentiating activity to enable the pupil to engage in and complete tasks when teachers did not do this themselves. Specifically, it emerged that TAs working with autistic pupils relied more on their experience and relationship of working with their pupils, than they did on 'formal' training. Lived experience, therefore, provided TAs the opportunity to understand the uniqueness of the young person that could not be gained from generic autism training.

Symes and Humphrey (2012) investigated the impact on the 'social' and 'academic' secondary school experience of 'autistic', 'dyslexic' and 'no SEND' pupil groups; they explored teachers' understandings of the TA role. This study used a mixed methods approach where quantitative observation tools examined the ways and with whom pupils participated; qualitative methods of unstructured observations yielded descriptive data that was then thematically analysed. Observations took place over five different lessons for each pupil. Symes and Humphrey conceptualised 'inclusion' as the adjustments that influence a pupil's presence and participation in activity, how they are accepted by peers and staff, and both the 'academic' and 'non-academic' achievements they make. It was found that young people with autism were more likely to seek support from a TA support than from a peer, even in group activity. Young people with autism could work independently and would do so best when TA support was 'targeted' - for example at the start of a task - to check the pupil had understood the task and to monitor the pupil's focus on the task. Crucially, the presence of a TA reduced the opportunities for pupils with autism to 'practise' social skills because both peers and teachers would address the TA rather than the individual with autism. Given lesson planning needs to take account of the fact that autistic young people have greater difficulties developing relationships (Great Britain, DfE and DoH, 2015; APA, 2013), I wanted to investigate what was influencing the

way Joe, his teachers and TA's participated during in-the-moment activity and how Joe's participation compared to that of his peers. I was interested in the sociocultural influences shaping Joe's peer and adult classroom relationships. This related to my question:

RQ 2: *What experiences does an autistic pupil (Joe) have in five secondary school classrooms?*

Given that transactional activity provides the opportunity to shape and reshape roles and relationships (Rogoff, 2003), the findings of Symes and Humphrey (2012) highlighted the ways in which pupils with autism relied on the relationship they had with TA's, and were not accorded the same opportunities to participate as their peers. To explore this further I examined the research of Radford, Bosanquet, Webster and Blatchford (2013).

Radford *et al.*'s (2013) sociocultural study grounded in discourse analysis, explored the differences in the ways teachers and TAs 'scaffolded' learning during classroom interactions and activity. They investigated adults' adjustments to the support given to pupils during activity - for example, through contingency, fading and transfer of responsibility. A fundamental difference emerged in the ways teachers and TAs structured their classroom discourse. The types of questions teachers asked promoted deeper pupil thinking about the subject and development of independence; in comparison, TAs, who were assumed by teachers to be more knowledgeable about the individual young person, were found to be more likely than teachers to give answers to questions or give misleading information. Consequently, TAs responses reduced the opportunities that pupils working with them had to explore and develop their own thoughts. The use of TAs was a response to manage and engage autistic pupils, with the consequence that their experiences of mainstream activity were different from those of their peers. This reinforced the importance of my first research question: *How is the autistic child's classroom experience shaped by understanding of the autistic individual in the intrapersonal, interpersonal, and institutional planes?*

It had become apparent in my reading that the influences guiding adults' repertoires of practice are significant for the opportunities accorded to autistic individuals in comparison to their mainstream counterparts. Within Joe's setting it was important to interrogate the focus of activity and responses to Joe. A diagnosis and his EHCP would suggest that developing his 'social literacy' skills was required to support his access to curriculum learning, such as his abilities to share ideas and resolve conflict. My study was concerned with how Joe identified himself as a member of his classes created from his experiences of the ways he was responded to in lessons. This was another theme related to my second research question: *What experiences does an autistic pupil (Joe) have in five secondary school classrooms?*

2.3.7 Autism as 'a special need'

This section directs the discussion to the empirical situation which will be the focus of the subsequent chapter. Autism has been established as a different way of perceiving the world and social behaviour by both diagnostic criteria (APA, 2013) and the experiences reported by people by autistic individuals such as Dicker (2018). The sociocultural position of my study simultaneously recognises the influence of the cultural discourse on how autism is 'defined' by such factors as the acceptance of 'normative' assessments within clinical settings. It also recognises the influence of the actions of others on how an autistic individual experiences transactional activity. Joe was simultaneously an autistic individual diagnosed as 'different', and a member of a mainstream learning community where undertaking standardised academic assessments are a goal of development (Rogoff, 2003; 2005).

Carter, Common, Sreckovic, Huber, Bottema- Beutel, Redding Gustafson, Dykstra, and Hume (2014) argued that the cultural focus of the management of activity and relationships in schools has an influence on the opportunities autistic pupils have to

participate in community endeavours. Autistic pupils are a particular 'group' whose participation and development depends on teachers considering the adjustment of learning activity:

'students with ASD may benefit the most when educators adopt a comprehensive approach to intervention that simultaneously addresses building student competence, equipping peers, reconceptualising adult roles, creating supportive school cultures, and engaging families more actively. Focusing narrowly on any particular pathway to the exclusion of others overlooks the ways in which skills, supports, opportunities, and expectations all interact to help or hinder peer relationships and social development' (Carter *et al.*, 2014, p98)

Jordan (2008) gives a powerful message that education is a community concern which merely 'fixing' individuals' 'academic deficits' cannot satisfy. Jordan's study reframes the value of education as a context where opportunities to transform values, attitudes and understandings have the potential to be realised:

'education is more than just another 'treatment'. It is the way that citizens are taught the values, understanding, knowledge and skills that will enable their full participation in their community; it is the gateway to full social inclusion. That is why every civilised society gives all its citizens the entitlement to education'. (Jordan, 2008, p11)

This alerted me to consider what was influencing adults' perceptions of, and responses to, Joe in the classroom, and how this was shaping his experience as a member of the class. Given that young people with autism have frequently reported isolation and uncertainty that heightens anxiety in their mainstream classroom experiences (Acker, Knight and Knott, 2018; Williams, 2010; Birch, 2006), what is transmitted in transactional activity are responses crucial for an individual's participatory appropriation and guides their choice of repertoires of practice. Thus, what is interpreted from cultural resources, which includes other people and material artefacts (Vygotsky, 1978), becomes significant

to experience of membership and participation. My study focused on the way Joe's school interpreted autism in its SEND policy and, in turn, how individual teachers perceived what was being required of them and how they responded to Joe.

Autism has been described as distinct behaviours that do not meet the expectations of pupil behaviour in classrooms (Fredrickson, Jones and Lang, 2010): this positions pupils with autism as significantly 'different' and more difficult to engage in classroom activity (Emam and Farrell, 2009). Given Joe's school's SEND register detailed his specific manifestation of autism and offered strategies to support his participation in lessons, how his teachers and TAs perceived his responses in comparison to his peers was important to explore. Fredrickson, Jones and Lang (2010) investigated the perceptions held by young people with ASC, their peers, parents, and school staff about prosocial behaviour, such as cooperation, and high cost behaviours that included disruptiveness, shyness or help seeking. They were interested in how displays of behaviours influenced social judgements. In their study, pupils who exhibited higher levels of prosocial behaviour, and lower incidences of high cost behaviours, experienced a greater level of social acceptance. For pupils who displayed lower prosocial behaviour, and higher high cost behaviour, social rejection was increased. Specifically, for young people with autism, it was found that:

1. Staff behaviour ratings did not evidence either social acceptance or rejection.
2. Pupils with ASC had greater ratings from their peers of high cost behaviours, particularly shyness, and lower ratings of prosocial behaviour. This made social rejection more likely within the educational environment.
3. For students with ASC rated with higher levels of prosocial behaviours by their parents, social rejection by peers remained high.

Whilst not examined within the study, explanation for social rejection by peers was suggested to be occurring through:

a) Less concessional behaviour being displayed towards pupils with ASC who exhibited behaviour more strongly associated with that of the expectations held by peers without ASC.

b) Behaviour understood as prosocial by parents was perceived as problematic by peers.

For autistic individuals' daily social interactions, busy school environments, such as larger group sizes, corridor bustle during lesson changeovers, elevates anxiety:

'Any social contact can generate anxiety as to how to start, maintain and end an activity and conversation. School becomes a social minefield; at any moment you can put a foot wrong. The natural changes in daily routines and expectation cause intense distress while certain sensory experiences can be unbearable'. (Attwood, 1998, p153)

Managing the demands of school life can be exceptionally challenging and it is clear that adjustments to activity are particularly necessary to reduce anxiety, depression and related feelings of isolation and paranoia that impact on mental health and are problematic to regulate (Jordan, 2008). Given lived experience is an essential aspect of Rogoff's (2003) 'transformation of participation', adjustments in activities also help counter the anxiety attributed to academic underperformance for autistic individuals (Ashburner, Ziviani and Rodger, 2010). Conn (2014b) also makes it clear that what is understood about children's behaviours is guided by the 'lens' of the observer, what others interpret about an autistic individual's behaviour is pertinent when the commonly referred to 'spiky profile' (Dicker, 2018) of autism is considered. Dicker, a young adult with a diagnosis of autism, has identified that the 'spiky profile' becomes a significant barrier to participation when it is assumed that all people plan, organise and action their thoughts in the same manner. For people with autism, Dicker (2018) argues others' responses are fundamental to framing their experiences. When we consider that participation in school classrooms is easiest for those who can more closely relate to the

commonly held expectations of academic and social behaviours (Watson, 2011; Carrington and Elkins, 2002; Fredrickson, Jones and Lang, 2010) it would seem that how autism is understood and the way an autistic individual's interactions and communication are perceived and responded to becomes significant to relationship development and academic success (Conn, 2014b; Rogoff, 2003). Given teachers' reports of autistic behaviours being problematic in mainstream settings (Emam and Farrell, 2009; Conn, 2014ab; Allan and Youdell, 2017), teachers' understandings and responses appear to be crucial. From the sociocultural perspective of my study, it was then logical to suggest that classroom activity and responses to Joe's autism were shaping how he perceived himself as a member of his class group. This informed my second research question:

RQ 2: What experiences does an autistic pupil (Joe) have in five secondary school classrooms?

Teachers in mainstream schools have reported anxiety and a lack of confidence about their knowledge of autism and this has emerged as a barrier for how teachers 'deal with' autistic pupils (Emam and Farrell, 2009; Grenier, 2010). In particular, 'dealing with' autistic pupils was embedded in teachers' reports of their lack of sufficient knowledge about autism and suitable strategies to best address pupil difference when they were under pressure to deliver a content heavy curriculum (Emam and Farrell, 2009; Grenier, 2010). In a climate requiring them to meet the diverse learning needs of all pupils (Great Britain. DfE and DoH, 2015) teachers' reported anxiety around managing the behaviours of young people with autism in the classroom (Emam and Farrell, 2009), when they are also accountable to the curriculum (Allan and Youdell, 2017; Spielman, 2017). This was not unusual in my experience of working with mainstream teachers as an advisory teacher. I was therefore aware that I needed to explore how classroom repertoires were being shaped by teachers as they negotiated institutional expectations with their own experiences. This reinforced the importance of my third RQ:

RQ 3: What dynamics and practice are operating in the intrapersonal, interpersonal, and institutional planes that shape Joe's lived experiences?

Given Rogoff's (2003; 2005) concept of the transformation of participation in cultural activities, what teachers negotiate about the 'needs' of autistic individuals from the personal and institutional resources they have available is crucial to developing their repertoires of practice. It also influences the way in which they transmit an understanding of autism as a 'special need', and the way they engage with a diverse range of learners within classrooms, given the accountability they perceive they have to the curriculum.

2.4 Rationale for the use of Rogoff's concept of transformation in participation and planes of analysis

Rogoff (1995; 2003; 2005) provided the opportunity to interrogate the dynamics of the institutional plane that was Joe's school and the wider political-educational culture; the interpersonal plane, where activity and relationships took place in the classroom; and the intrapersonal/individual plane, and how experiences were shaping how participants perceived community membership. Specifically applying Rogoff's (1995) concepts of guided participation, repertoires of practice and participatory appropriation allowed a focus on how the planes were interacting and influencing Joe's experiences to make his interaction and communication needs pertinent or superfluous within his lived reality of classroom activity and community membership. Given this, investigating the interplay between the planes and the influence this had on in-the-moment activity and classroom relationships in relation to my study offers a unique use of Rogoff's concept. In particular, it allowed an investigation of Joe's mainstream classes within the prevailing cultural-historic priority assembly-line learning tradition of the UK where his autism had been categorised as SEND.

Rogoff (2003; 2005) makes it clear that experiences are not only the foundation of learning the community ways of life, which embraces values, knowledge and skills required in adult life, but also influence how an individual 'fits' into adult roles and activities, such as in the workplace. To investigate Joe's participation, and how he was responded to by teachers and TAs, the wider, cultural plane needed to be understood. As a pupil in a Local Authority maintained school, Joe's experiences as a member of his learning community were important to his development as he approached adult life. As Rogoff (2003) explains the powerful influence of wider culture on communities of practice and individuals within it:

'what [people] do depends in important ways on the cultural meaning given to the events and social and institutional supports provided in their communities for carrying out specific roles in activities' (Rogoff, 2003, p6)

Rogoff's explanation above highlights that how people respond in activity and perceive community memberships is shaped by their experience, interpretation and response to the values and expectations being transmitted during transactional activity such as interpersonal interactions. Given autistic individuals' reported experiences of difficulties in relationships, heightened anxiety, academic underachievement, and isolation (see chapter two), it was important to investigate how Joe was interpreting others' responses to him in his repertoires of practice during his lessons. Additionally, given the context where transactional activity occurs is significant to participatory appropriation (Rogoff, 2005), how classroom activity and relationships were organised needed to be considered in relation to Joe, his teachers' and TAs' experiences of education. As a specific goal of development prior to entering into mature activity, individuals' experiences of education, whether as an adult or a young person, were important to examine the intrapersonal influence of what different community members perceived was expected of them in their relationships and how this guided their classroom role.

2.5 Conclusion

My study provided an opportunity to cross research-practice boundaries as is suited to a professional doctorate. Understanding what was influencing Joe's classroom experiences required an understanding of school management, curriculum, the 'ordinary teacher' and how professional demands were managed, as well as the needs of the focus pupil (Joe). A study focused on an autobiographical account of being autistic, or centred on practices, such as autism (as an 'object') in a mainstream setting, could not plug the research gap on investigating inherent cultural, social, and personal dynamics creating different experiences of membership: namely, the transactions between context, activity and experience influencing how Joe was responded to and the way/s he perceived his relationships and abilities. Thus my study looked at the classroom context and took into account both the autistic person (Joe) and the perceptions of those who were responsible for the environment in which he was learning.

The literature reviewed in this chapter demonstrates that a formal diagnosis of autism can be conceptualised as a 'deficit', a 'difference' or 'irrelevant', depending on an individual's experiences, others' responses and community interpretation. Autism has been framed within the cognitive psychological paradigm as deviance from population 'norms' in the standardised scores of individuals' 'performance' in social interaction, communication and information processing tasks (APA, 2013). Self-reports of autistic experiences have identified isolation and exclusion in social relationships from the ways different individuals have been responded to during education (Jackson, 2003; Williams, 2010; Birch, 2006). While being autistic has been described as being an inherent difference in how activity and relationships are experienced (Dicker, 2018; Jackson, 2003), the argument is made in this chapter for reframing autism as 'an alternative way of thinking' (Beadle, 2018) that brings many benefits to shared endeavours. These benefits include a fine attention to detail, systematic and logical thought and creativity for problem solving, which are beyond the realms of 'normal' thinking (Beadle, 2018; Dicker, 2018; Jackson, 2003). Listening to

‘autistic voices’, such as Jackson’s (2003), it is apparent from my literature review, as well as my professional and personal experience (see chapter one), that the prevailing discourse of clinical and school settings is being shaped by the cognitive paradigm and an interactional worldview of the process and purpose of education (Rogoff, 2016). However, this neoliberal (Pratt, 2016; Humphry, 2017) narrow focus on the individual in isolation from their context and prioritisation of ‘standardisation’ and ‘norms’ in development and attainment becomes particularly problematic for autistic individuals’ who have already been categorised as not following the same development expectations as their peers (APA, 2013).

The dominance of the cognitive paradigm in education (Edgar, 2012), within an assembly-line learning culture (Rogoff, 2005) contributes to the type of activity and information adults organise and young people have access to. Grenier (2010) is clear that how autism is perceived by teachers - as a possibility or a limitation - influences the adjustments they consider and implement or disregard in classroom activity. When teachers are under pressure to deliver results, classroom approaches are at greater risk of also being ‘standardised’ to a ‘one size fits all’ approach (Khader, 2012; Harris and Graham, 2019). This is problematic for autistic individuals, whose anxiety and differences in interactions and communication are a greater barrier to relationships and participation compared to mainstream peers (Hay and Winn, 2012). For a specific group of people who already ‘sit outside’ of the ‘norm’ by virtue of the different way they interpret and respond in social interactions, and the way they are ‘defined’ within the medical paradigm, the priority given to standardisation in education appears flawed. Teaching, assessment, and judgement focused on a narrow set of abilities (Spielman, 2017) appears insufficient to enable teachers to develop their knowledge and experience of autism from their classroom relationships. It is also insufficient to enable them to consider adjustments and different ways to manage autistic differences and reduce the common reports of isolation (Williams, 2010) and academic underachievement (Hay and Winn, 2012).

Rogoff's concept of the transformation of participation in cultural activities (Rogoff 2003, p.37) has established that the dynamic interplay between the social context and the individual is guided by community values where adults' organisation of classroom activity influences children's development. Being an autistic individual, therefore, is irrelevant to the fundamental cultural processes influencing development and transformation. Instead, it would seem that what a community perceives about autism and the ways individuals adjust activity and the interactions that take place within this, influences the opportunities an autistic individual has to transform membership, in comparison to others. Thus, transactional activity is the fundamental mode by which people negotiate their differences and transform their roles, relationships, and the way they participate in learning-based activities (Rogoff, 2003). Specifically, how an individual negotiates their experiences with what they interpret to be expected of them in their context has an influence on their pattern of engagement. This may be compliant or contrary to prevailing community priorities and values. For autistic pupils, the actions, and understandings of adults in the classroom seems particularly important for the opportunities these create to negotiate differences in interaction and communication with peers, teachers, and TAs'.

The studies of Humphrey and Symes (2011), Symes and Humphrey (2012) and Acker, Knight, and Knott (2018) have highlighted the role of TAs in mainstream classrooms. These studies have identified that the deployment of TAs has influenced how other members of the class responded to the autistic individual and shown that interactions are often mediated by the TA. However, the opportunity to work one-to-one with a specific pupil has been found to be particularly valued by TAs because this arrangement accords them greater opportunity to 'get to know' how a particular young person responds to task and social expectations. It seems from Humphrey and Symes' research that TAs place greater value on this lived experience because they can more easily adjust their own responses in relation to the individual; in contrast, knowledge acquired from formal training was felt to be too generic to be useful.

For autistic pupils, the relationships they have with TAs deployed to support them have been illuminated as crucial to their experience of mainstream activity and their participation in curriculum tasks and relationships (Acker, Knight, and Knott, 2018). This seems particularly so when teachers feel overwhelmed with curriculum and assessment demands (Buchanan, 2015) and when teacher accountability for pupils' examination performances creates time pressures which narrow their teaching approaches and opportunities to develop relationships with individual pupils (Khader, 2012; Buchanan, 2015; Harris and Graham, 2019). Furthermore, the behaviours exhibited by autistic pupils as a response to the demands of activity have been reported as a particular challenge for teachers to manage in mainstream classrooms (Emam and Farrell, 2009), when they primarily see themselves as responsible for 'getting through' the curriculum content that pupils will be assessed on (Allan and Youdell, 2017).

Teachers have a clear responsibility to negotiate the time and resources they have available to 'deliver' curriculum content around individuals' 'needs' (Great Britain. DfE and DoH, 2015). For autistic pupils, classroom opportunities appear poorer than their peers (Acker, Knight, and Knott, 2018). Given a diagnosis of autism alerts us to an inherent difference and the potential barrier in relationship development embedded in interactions and communication (Great Britain. DfE and DoH, 2015), what teachers recognise and understand about individual differences and how they respond as they plan and present lessons, positions their classrooms as the context of activity and experience. The context teachers establish, and the explicit and tacit values they communicate in their actions and discourse, then ultimately has a direct impact on the opportunities available for transformation (Rogoff, 2003).

It became apparent from engaging with the literature for this review, that a sociocultural perspective offered an exciting insight into the dynamics influencing classroom activity, relationships and how Joe, as a young person with autism, experienced these. My key reading of Rogoff (1995;2003;2005) alerted me to the fundamental and universal influence of a culture's learning traditions. Specifically, the learning tradition of a

community guides the way activity is organised and relationships are managed, and this is fundamental to an individual's experience in activities and shapes how different people participate as a member of their community. Rogoff's work also led me to reconsider my initial research questions. Her sociocultural based approach revealed the possible consequences arising from Joe's school's obligation to implement the policies created within the wider political sphere. Reviewing the school documentation, such as Curriculum Matters and SEND policies, in relation to Rogoff's work, highlighted Joe's school's focus on academic ability evident in the ways they organised teaching groups, tracked learning attitude and progress, and provided TA support. This established Joe's experience as being situated in a context which categorised learners by their performance abilities in reading and writing standardised assessments.

Applying Rogoff's (2003;2005) concept of the transformation of participation, what teachers and TAs interpret and how they respond to the tacit and explicit values of their context - for example, what is conceptualised as learning and how this is assessed - can be observed in their actions, and identified in their discourse. Repertoires of practice then become a unit for analysis that provides the opportunity to scrutinise what is guiding participation and membership of different community members from their context and experience. Interpreting an autistic individual's repertoires of practice within the context of lesson activity and relationships using an 'autistic lens' benefits both their curriculum activity and their affective experience as this allows responses to be individualised (Conn 2014a, 2014b). How Joe was understood as a member of his community of learners, defined by the shared understanding of the purpose of activity, roles, and relationships, and what was shaping classroom actions through the dynamics of the institutional, interpersonal, and intrapersonal planes (Rogoff, 2003) strongly influenced my decision to revise my initial research questions.

Rogoff's (2003) conceptualisation of planes enables a unique insight to investigate how Joe, as an autistic individual, experienced community membership. Using Rogoff's approach for analysis allowed context, activity, and experience to be individually

spotlighted to illuminate the ways community practices and tools, classroom actions, discourse and teachers' experiences were contributing to how Joe was being responded to in classroom activity and relationships. Given the alternative ways autistic individuals interpret and respond to social information in comparison to mainstream peers (Beadle, 2018; Dicker, 2018; Jackson, 2003), applying Rogoff's concepts and analysis to my study allowed scrutiny of why being autistic in a mainstream community is often experienced as stressful and isolating (Birch, 2006; Williams, 2010). With Joe's insider perspective at the core of my study, I examined how his opportunities to transform his participation were being influenced by the dynamics within and between Rogoff's (2003) conceptual planes. By using Rogoff's planes of analysis to interpret my findings, my study offers Joe's teachers and school leaders the opportunity to challenge their assumed community and classroom practices, and to reflect on how current actions and discourse are denying or enabling autistic individuals to transform their knowledge, understanding and negotiate community memberships as they participate in activity and relationships. My initial research questions, in light of my reading to enable this scrutiny of Joe's 'reality', were revised again:

RQ 1: How is the autistic child's classroom experience shaped by understanding of the autistic individual in the intrapersonal, interpersonal, and institutional planes?

RQ 2: What experiences does an autistic pupil (Joe) have in five secondary school classrooms?

RQ 3: What dynamics and practice are operating in the intrapersonal, interpersonal, and institutional planes that shape Joe's lived experiences?

The following chapter discusses the ontological and epistemological research decisions I made and how these were reflected in my methodology. For the credibility of my study, it

was essential that my methodology reflected the ontological and epistemological position embodied in sociocultural theory to examine my revised research questions. It was essential I scrutinised my position as a researcher and educational practitioner familiar with Joe's school policies and the *CoP* (Great Britain. DfE, 2015 and DoH, 2015). My professional experiences prior to undertaking my application for Doctoral study, required me to check for potential bias in my own interpretation of these documents during my classroom observations of five lessons across two separate visits. This also applied to the interviews I conducted with Joe's teachers and TAs who were present during these lessons. The following chapter also outlines the necessary ethical considerations required for research involving human participants, particularly in relation to Joe as a vulnerable young person with a diagnosis of autism.

Chapter 3 Methodology

3.1 Introduction

In this chapter I address the ethical considerations of undertaking research in naturalistic settings and the vulnerabilities that must be considered for young people with autism as a specific group. I set the scene where my research was undertaken - this establishes Joe's position in the context of his school. I conclude with an explanation of the influence of Rogoff's (2003) concept of the transformation of participation in cultural activities in the methodology adopted for this study and why these suggested research methods and tools were appropriate for the production of valid data necessary for a credible study.

.

3.2 Ethics, issues, access, and consent

This study was designed to reflect normal activities and behaviours with minimal risk of harm to participants. This required Joe to attend his lessons as usual. Participants were invited to take part, and all agreed to do so (see appendix 1 for consent form templates). The involvement of human participants necessitated ethical approval to be obtained prior to research being undertaken.

The settings for individual interviews required practical consideration. To empower participants, I asked where they would be happiest to be interviewed and this was agreed as the SENCo's office within the Learning Support department. Joe's vulnerability as a young person, as a member of a 'vulnerable' group (British Educational Research Association [BERA], 2011) was acknowledged and I asked Joe if he would like to have anyone with him in our interview session. This considered the benefit of having someone

he knew with him, to help him feel more at ease during the interviews (Cohen, Manion and Morrison, 2011). Joe told me that he was fine to meet with me alone. For privacy during interviews I put a 'Meeting in progress: Do not disturb' sign on the door of the room. This was to enable conversational flow and descriptions to emerge without interruption, although it safeguarded Joe in that it was possible that someone might enter at any time.

The school and the participants were assured all data, individual and school information would be kept confidential, and anonymised in line with BERA guidance (BERA, 2011) and Human Research Ethics Committee [HREC] (2015) requirements. The recent introduction of General Data Protection Regulations [GDPR] (2018) emerged as a concern for adults in final interview as they were unsure what they were permitted to disclose.

I identified myself as a student within the Open University EdD programme to gatekeepers and participants. I explained that my study was being overseen by two supervisors, employed by the Open University, who have Doctoral qualifications (see information sheets appendix 1), and as part of my research, my supervisors would have access to the information I gathered, along with university approved external assessors. Gatekeepers and participants were made aware that when successfully completed, the final report would be available electronically online. Participants were advised that they would be able to see and discuss the research at any point of the process either with myself or with my supervisors. No participants took this opportunity up. Participants were assured all information would be stored securely with encryption on my computer, and a password protected memory stick for back up, and that these would not be accessible to anyone else. These steps conformed to HREC (2015) guidelines and detailed in my application for approval (see appendix 2).

3.2.1 Gatekeeper roles and adult participants

Head teacher consent for the school, pupils, and staff members within it, to participate was attained prior to recruitment of volunteer participants, and the use of pseudonyms was assured. This recognised the position of 'gatekeeper' held by the head teacher, professional courtesy, and the legal standing of the head teacher to authorise the researcher to be on school grounds. An email to Joe's headteacher (see appendix 1), was followed by a telephone discussion. Miss Bass gave her agreement and suggested I liaise with Mr Jones as SENCo. This professional discussion and written information clearly outlined the purpose, process and use of findings from the study and enabled informed consent (BERA, 2011).

Mr Jones (SENCo) and I discussed pupils in the school who had an ASC diagnosis to ensure that there was no tacit or explicit bias in the selection of potential volunteer participants and that participant selection followed the criteria. His deep, insider knowledge of the pupils was valuable, and identified Joe as a potential participant. This decision was made because Joe attended all his curriculum lessons. Joe is entitled to additional adult support in lessons through his EHCP.

Mr Jones gave his written consent and discussed the research with me. Joe's informed consent was attained from his mother as a gatekeeper; this followed an initial discussion between us and her verbal consent. We subsequently read the information sheet together. This detailed the nature of the research, and Joe's participant role within this (appendix 1). She was keen to sign her consent on the day of our meeting and did not take up my offer for a 'cooling off period' of a week. Teachers responsible for teaching Joe on the day of my visit were approached by Mr Jones to ask if they would volunteer to participate. He has a professional relationship with them and had knowledge and understanding on the research purpose and process which he explained to them. Informed consent was attained from volunteer staff members via discussion with Mr Jones. My email and telephone contact details were given to them so they could raise any concerns or questions they may have. Joe's teachers and TAs did not contact me. When I spoke to them on the day of my visit, they said they were happy to participate and

explained their understandings of the research. Their verbal descriptions confirmed that their understandings were the same as mine. They read the participant information and signed consent forms, as detailed in appendix 1.

.

3.2.2 Young person participant

Joe, a Year 9 pupil with a diagnosis of Asperger's Syndrome and an EHCP that identified his interaction and communication as his primary need, was approached to volunteer within this study. This followed Mr Jones's discussion with his mother. Both adults acted as gatekeepers - a necessary condition for informed consent with young person participation (Cohen, Manion and Morrison, 2011; Human Research Ethics Committee, 2015). This was important because of potential issues that may occur with young people under 16, as a vulnerable group (Cohen, Manion and Morrison, 2011) and through Joe's diagnosis of autism.

I examined the research process and considered the ethical obligations I had as a researcher to uphold participants' right to freedom, attain informed consent and negotiate perceptions around these. For example, there may be power relations and anxieties when in an unfamiliar position; Joe's understandings around language might influence what he understood about the research purpose, his and my roles within it. This considered Joe's vulnerability through anxiety and communication difficulties, and his potential difficulty in expressing consent or withdrawal of himself and his data at any point. (HREC, 2015).

Joe's informed consent, and strategies to enable him to participate, such as the most appropriate ways to present information to Joe, were discussed with Mr. Jones. Joe was forewarned of what would happen in lesson observation and interview and assured a familiar and trusted adult could be with him during interview. Joe declined another adult

presence. Written information was discussed with Mr Jones for its appropriateness and relevance to Joe's understanding of language.

I am aware that people with autism may be anxious, and that this can have an impact on understanding and communication (Attwood, 1998). I considered how this could be problematic for Joe's empowerment and control within the research process. I talked with Joe about his anxieties and how he recognises them, and gave him the option of using alternative forms for communication, such as green, yellow and red 'traffic light' cards, to indicate visually how he felt about a question or the situation; he said '*No, I will talk*'.

This study received consent from the Open University Human Research and Ethics Committee, 2015, reference number HREC/2718/Willis. The application details outlining ethical considerations can be read in appendix 2. Further response from my original application was requested by HREC for further clarification on procedural elements of my research. These concerns were addressed, and following HREC reconsideration, approval was given. This delayed the undertaking of the research, although with some flexibility on the part of the school and my work diary I was able to undertake my first visit before the Christmas break.

3.3 Setting the scene

Joe's experience as a young person with a diagnosis of ASC within a mainstream classroom was central to this study. The choice of a secondary school context was important, this being the timeframe of adolescence and the increase in expectation for pupils to take greater responsibility for their self-organisation (see literature review for further discussion). Whilst ethnography enables interrogation of causation in lived contexts that is denied within laboratory and clinical settings (Cohen, Manion and Morrison, 2011), my study was of a single 'case study' mainstream school and an autistic

pupil's experience of daily lessons over three visits. This was one day per term. This extended my initial study that had given me the opportunity to pilot my data collection tools. My initial study was then important in guiding my decision to use ethnographic tools because these had enabled the generation of rich, descriptive data that could capture the experience of being human that quantitative methods reduce (Cohen, Manion and Morrison, 2011), and which reflected the sociocultural ontology and epistemology of this work to give it validity and credibility.

My literature search (see later) and review (chapter two) allowed critical reflection of Rogoff's (2003) explanation of the ways people make sense of cultural information and integrate this within their daily activities. This influenced how I conceptualised Joe's school as an authentic context. It was sensible to conceptualise Joe's school as a 'community of learners' within a wider educational and political framework because of the obligations it had to interpret national policies and legislation and implement these within its own policies and practices, such as the school's SEND policy. Thus, Joe's school is a localised context with a shared understanding of the purpose of activity as a 'goal of development' situated within an overarching political-educational culture. It was therefore viewed as the 'institutional plane' (Rogoff, 2003) for the purposes of this study.

Joe's school was a large mainstream secondary comprehensive school (11-18 years). Just over ten per cent of pupils on roll were identified as having SEND, of whom seven had a diagnosis of ASC and had Education, Health and Care Plans; nine had a diagnosis of ASC with no identified educational 'need' to generate EHCP 'status'. All pupils were taught in mainstream lessons by curriculum subject staff. To be able to work with children in schools I had Enhanced DBS clearance via the Local Authority for my job as a Specialist Autism Advisory Outreach Teacher. Joe's school was a Local Authority school, and I was familiar with some staff and pupils through my professional role. My Enhanced DBS status was considered suitable for my research role.

I selected my participants on a volunteer basis because my interest in the 'lived experience' of a young person with autism has ethical implications (see ethics). A diagnosis of autism and EHCP provision were the only criteria applied in the recruitment of a volunteer pupil participant. My concern was to explore my research questions from the unique perspective of one young person in depth. As a singular study it offers context specific, rich findings for Joe's school to reflect on and consider how curriculum and learning priorities are negotiated that could be used to transform classroom approaches for Joe as a young person with specific communication and interaction 'needs'.

I observed Joe in his lessons across a Thursday on two separate visits in two different terms. These were Autumn term 2017; Spring term 2018. Joe had identified Thursdays as his 'best' school days because he liked the subjects on his timetable. Joe selected Thursday after highlighting the lessons he liked across a whole week in red (don't like); orange (ok) and blue (like/enjoy). This identified that he liked Thursday the best by giving it the greatest number of 'blue' lessons. Joe's Thursday timetable can be seen in appendix 3. Joe's choice of day was important to my research because, aside from ethical considerations, it was important to me that he felt some ownership and control within the research process. Being sensitive to Joe's potential anxiety was important as this can disrupt his conversational fluency. Investing time with Joe was essential for him to come to feel more at ease with the research process.

I had planned to visit Joe in the Summer term 2018. On the day of my visit he was absent from school. I did not undertake observations on this occasion as my focus was on how Joe participated within the structure of classroom activity. This gave me the opportunity to spend longer in interviews with his teachers and one TA (Mrs Peterson) and further examine their experiences from my previous visits. I was able to meet with Joe on a different day (Tuesday) in the summer term; Joe was unavailable on the Thursday that week due to a school trip. As Joe had identified Thursdays as his preferred observation day, on my final visit (Tuesday) we met for an extended interview opportunity that Joe told me he was happy to do. This enabled Joe to contribute further to his perspective on

how he participated in classroom activity and what he understood about himself from his own and others' roles in relationships.

Data from my observations and interviews enabled me to investigate the dynamics between the institutional, interpersonal, and intrapersonal planes and the opportunities available to Joe to transform his participation within classroom activity. In particular, the response of teachers and TAs to Joe, compared to their responses to his peers, provided insight into what was shaping adults' perceptions of him and what he perceived about himself within classroom activity. In the following chapter (four) I will present my findings. These are the basis for the analysis presented in chapter five.

3.4 Literature search strategy

To efficiently identify relevant research material, my inclusion criteria was initially broad and reflected the different paradigm positions of the different domains underpinning my study. I identified key words and concepts, for example 'autism'; 'Asperger's syndrome'; 'autistic spectrum disorder'; 'autism and mainstream classrooms'; 'inclusion'. I typed these as subject headings into the Open University 'library search' and Google Scholar to search multidisciplinary databases. This was because my search spanned health, education, and social domains. I used individual words/phrases and 'Boolean' combinations, such as sociocultural and autism or studies. These searches pulled up journals, articles, and research papers from databases. I initially read the literature materials and considered these for exclusion or inclusion from the perspective of timeliness and relevance, such as to Joe's diagnosis as autistic, age group and type of school. I was interested in autism studies that were more closely aligned to Joe's context - for example, those based on UK studies. However, I also included international studies and papers to enable me to reflect on the influence of similar and different contexts, such as the effect of policy change on teachers' classroom practice and identity; the links to Rogoff's socio-cultural perspective; and the relevance of objectivity and provenance. This

included critical reflection on matters such as overt bias - for example, sponsorship of the research for a specific purpose; the perspective of the writer; if the author was an acknowledged expert in the subject area; if the article had been peer reviewed; the influence of paradigm and research methods on findings in research papers and the validity/credibility/challenge of these to my study.

I targeted research studies from my initial literature search which most closely aligned to my research questions and position. I therefore prioritised research studies and research related publications which were UK based, situated within the sociocultural paradigm, were undertaken during a time of curriculum reforms, and took an authentic autistic perspective. Within these prioritised readings I used citation searches based on the reference lists in the papers I read. This identified books such as *Autism and the social world of childhood* (Conn, 2014b) to complement those which I knew already, for example, *Freaks, Geeks and Asperger Syndrome* (Jackson, 2003) that is a well-read book in my household. In turn, bibliographic and index details from these books were used to conduct another series of library searches. These searches enabled me to follow up further lines of enquiry in relation to my research questions and school setting that developed from my reading. To keep up to date with new articles I set up journal alerts using 'JournalTOCS', and database alerts in Mendeley. I also used social media networking (Linkedin) to discuss, debate and contribute my ideas. I organised my information using Mendeley desktop and web program.

My review of the socio-cultural literature and relevant case studies suggested development is shaped by context, activity and experience; thus I sought to explore Joe's understanding of himself as a member of his learning community and to analyse his patterns of engagement from his experiences. I wanted to try to identify how his understanding and engagement flowed from the way adults and peers responded to him in the classroom. Given his diagnosis of autism, I was particularly interested in Joe's own explanations for how he participated as I investigated my revised research questions:

RQ 1: *How is one autistic child's classroom experience shaped by understanding of the autistic individual in the intrapersonal, interpersonal, and institutional planes?*

RQ 2: *What experiences does an autistic pupil (Joe) have in five classrooms within his secondary school?*

RQ 3: *What dynamics and practice are operating in the intrapersonal, interpersonal, and institutional planes that shape Joe's lived experiences?*

3.5 Rationale for methods

My research questions, which emerged through the literature review, made it apparent that to understand Joe's experience it was necessary to interrogate what was guiding adults' actions and responses to Joe within classroom activity and how these were influencing Joe's repertoires of practice.

The research questions of this study shaped the collection and analysis of the data and reflected the sociocultural ontology and epistemology, whereby knowledge is socially and contextually situated and transmitted through activity (Rogoff, 2003; 2005).

This chapter now explains the research decisions I made and actions I took to address my research questions. I first discuss why collecting qualitative data was necessary to my study. This leads into issues of validity and credibility in the research tools before I explain

my choice of observation and interviews to generate data and the analysis of these. I will also discuss the place for researcher reflection and conclude with the relevance of findings to their sociocultural context. This foregrounds the presentation of findings that follows in chapter four.

3.7 Collecting cultural data

My study was context-situated because it was undertaken from the epistemological position of the sociocultural perspective that meanings emerge from the context in which activity occurs. Cohen, Manion and Morrison (2011) advocate that data collection tools must be fit for their purpose to generate contextual data so that findings to research questions are high in relevance. I decided to use cultural data using ethnographic tools to generate rich description so that findings were valid and credible within the context of my research site. Therefore, I observed the actions of Joe, his peers, and adults (teachers and TAs) as these occurred in-the-moment during lessons. I recorded this activity initially as field notes and later into typed format. This provided a timeline chronology of in-the-moment actions and discourse as these happened (appendix 4 gives an example). In-the-moment activity thus provided contextual data on the ways different members of Joe's community participated in learning tasks, peer, and adult relationships to give relevance, validity, and credibility to my study.

Cohen, Manion and Morrison (2011) warn that the researcher-participant relationship in qualitative research can risk research integrity. Researcher sensitivity to participant confidence and perceptions of power differences, particularly when working with young people and vulnerable groups, was an essential consideration needed within my study. My research decision on which lessons to observe, when and where interviews would take place with Joe and the ways he felt comfortable to communicate were co-constructed with Joe. This was important because, as he is a young person with autism, there were particular ethical implications (see earlier) as well as the fact that difficulties in social

interaction, communication, information processing and anxiety had to be considered so that he was empowered by the research process (Attwood, 1998; Conn, 2014).

3.8 Validity and credibility in research tools

I used the ethnographic tools of observation, researcher reflection and interviews to capture the lived reality of participants within their situated sociocultural context (their school). Each tool is now discussed, along with how the data that was generated and how it was analysed to provide a study high in validity and credibility to Joe's setting.

3.8.1 Observations

Naturalistic participant observation provides the researcher with a unique insight to behaviours as they occur for people within an environment familiar to them; this is something that clinical and laboratory settings do not afford (Cohen, Manion and Morrison, 2011). Thus, Joe's sociocultural context and his familiarity with it was important to my research.

Cohen, Manion and Morrison, (2011) suggest that the process of observation should direct researchers to reflect on what is happening as it occurs within the research context. This enables research to be authentic. The school gave permission for observations to be undertaken within the classroom and notes made, as they felt this was in keeping with the experiences of pupils and staff, such as when Ofsted visit. They would not give permission for video footage. Thus, taking notes in the classroom was agreed with the SENCo, Mr. Jones, to align with the usual practice of classroom observations by other staff members and professionals from outside agencies.

Cohen, Manion and Morrison (2011) suggest that participant observation of activity as it occurs provides a focal point for generating and examining rich and descriptive data. The generation of qualitative data was necessary within my study because it '*can indicate causation at work, action narratives and agency, within broader conditions and constraints*' (Cohen, Manion and Morrison, 2011; p 471). In-the-moment actions and discourse were then an essential part of my investigation into Joe's lived experiences as a member of his community of learners. To capture the context of Joe's lessons, I noted down what I noticed about the classroom context of each lesson. This included class size; number of adults; seating arrangements; subject; 'ability'; the type and purpose of activity, for example, administration; learning task; how the task was organised, such as adult directed/adult guided/ pupil-led. This information was organised within analysis (see example, appendix 4). Observations of activity in the interpersonal plane (Rogoff, 2003) were then central to guiding interviews and for making sense of what was influencing Joe's sense of his membership in lessons.

To capture activity as it occurred, observational data was collected at the time of each lesson. One curriculum lesson was scheduled for 60 minutes; however, with the back to back timetabling of lessons observation times varied because pupils moved between different areas of the school for each lesson. This method of observation had been successful in my initial study as the data produced captured the different and similar ways people participated in shared activity, so I replicated it. I focused my observations on the actions and discourse that occurred in a series of different subject lessons that reflected the way the curriculum was timetabled in the school and which were routine for Joe.

Rogoff (2003; 2005) suggests that within classroom settings, relationships are hierarchical with adults holding a higher authority than pupils. My observations then explored what was happening in the actions and discourse between Joe, his peers, teachers, and TAs, and what these indicated about relationships and membership. This allowed me to consider how Joe's experience was the same or different from his peers: for example, what Joe and his peers did and how teachers and TAs responded. This was

to generate data on the roles and relationships to explore the relevance of his autism within learning activity. My observation and reflections notes were chronologically organised to capture classroom activity as it occurred 'in-the-moment'. I typed my notes on what I observed and my reflections on these, as aide memoires, onto my laptop as I observed the classroom activity. These were typed up in full when I returned home from my visit and saved on a password protected memory stick.

3.8.2 Observational analysis

Observational data was colour coded into different task types offered by Joe's teachers. This was to focus on how teachers presented curriculum information and the accommodations that were made as responses to different pupils' strengths and challenges. Colour coding enabled me to examine the types of learning activities teachers were using, and I identified how many minutes were spent in different activity types. As each lesson length varied due to travelling times between different areas of the school, I converted minutes to percentage for each lesson so that different lessons could be more easily compared for the amount of time teachers devoted to particular activity types and how Joe participated in activity during this time in comparison to his peers. Within each task type I analysed the interpersonal plane for how Joe, his teachers, TAs, and peers participated. This was to focus on patterns of engagement and the opportunities that were available to transform Joe's roles and relationships.

Observational data then provided information on the type of transactional activity that took place and how different community members responded. Observational analysis illuminated the focus given to literacy within different subject areas. However, observational data alone was insufficient to investigate the sociocultural processes influencing classroom activity and the way people participated in it. This required follow-up interviews on what I had observed.

3.8.3 Interviews

Cohen, Manion and Morrison (2011, p471) state '*observation on its own does not establish causation as much as causation is not observable*'. To explore individual participants' perspectives and experiences from my observations, and investigate the experiences that were underpinning participatory appropriation during in-the-moment activity, I conducted interviews with teachers, TAs, and Joe. I had provided Joe with a relationship circle visual resource to enable him to reflect on his perceptions of the significance of his classroom relationships so that that we could discuss this together. These were typed up along with interview data (see appendix 5).

Cohen, Manion and Morrison (2011) identified four fundamental types of interviews – informal conversation; a guided approach; open-ended and closed interviews. As part of the research process I considered the strengths and weaknesses of each approach and the benefits or disadvantages these would offer to my study. This was because the purpose of my interviews was to capture the participants' voice based on the activity I had observed, and analyse the influence of the three different planes from the patterns of engagement and participatory appropriation evidenced in the data.

In my initial study I had used a semi-structured interview approach. This had been inadequate in capturing the authenticity of each lesson. Following a pre-planned agenda had served a purpose of allaying my nerves at my inexperience as a researcher but restrained the responses of some of the participants. For this current study then, I was intent on generating more open responses to capture participants' lived realities and to counter participant 'defensiveness' (Gadd, 2004) while encouraging participant confidence, trust, and empowerment through 'participant voice' (Cohen, Manion and Morrison, 2011). This would not have been the case if I had used closed questions or guided approaches (Cohen, Manion and Morrison, 2011). To reflect this, my research decision was to use informal conversation. Whilst this approach is less systematic and risked difficulties with the organisation and analysis of data (Cohen, Manion, and

Morrison, 2011), it enabled the diversity between people to be captured and reflect the uniqueness of each classroom environment and individuals. This was important for validity and credibility.

To encourage rich, relevant descriptions within the flow of conversational interviews, I focused on how I could structure my questions within the flow of conversation (Patton, 1980). I posed open ended questions - for example, 'tell me about...'/ 'how?' - to interrogate the in-the-moment activity I had observed, to listen to the perspectives of those who had taken part in it, and to encourage naturalistic conversational flow. Interviews were audio-recorded on to a Dictaphone and subsequently transcribed for the purpose of analysis and to provide the opportunity for participants to review what they had said. It was intended that the interviews would also be undertaken with Joe's peers with whom he worked. However, this proved to be problematic as they were unavailable during the time that the school could allow for this to happen.

I considered the practical aspects of when to interview teachers, TAs, and Joe within the daily running of the school. The timetabling of lessons was problematic because lessons are arranged on a 'running' clock: for example, lesson one ran from 9am-10am; lesson two from 10am-11am. This organisation of back to back timetabling required teachers to release one class and organise the 'immediate' arrival of the next. This did not consider that pupils, and sometimes staff and researchers, need to travel between teaching areas and cannot be in two places at one time. This timetabling then also limited my opportunities to capture observations as I also needed to be in Joe's lessons with him. The viability of conducting interviews at the end of each lesson to counter issues around memory and recall (Cohen, Manion and Morrison, 2011) was then problematic.

I also had to consider the timetabling of break and lunchtimes, and the activities and tasks that staff and Joe were involved in, such as eating lunch, meeting friends/colleagues, lunchtime clubs/ detention and such like. Thus, time available was limited. The reality of

the organisation of the school environment that was the daily experience of participants showed that 'down time' away from the curriculum was precious and limited.

To address the issues of time constraints and participant availability I negotiated the most suitable time staff and Joe had available with them. On visit one I interviewed the following teachers: Mrs Smyth (Science); Miss Prince (English); Mrs Lennie (History) and Mrs Calle (Music); I also interviewed Miss Kirkhill (TA). Each teacher and TA interviewed identified a lunchtime 'timeslot' to meet with me in the SENCo's office following morning lessons; for lessons that took place after lunch and before the end of the school day, staff again identified a time slot. Mr Pyman did not attend for interview, and on my subsequent visit he had gone off work on long term sick leave.

For visit two, I interviewed Mrs Smyth (Science); Mrs Calle (Music) and Mrs Peterson (TA). The same interview schedule was implemented in visit two. Miss Prince was absent from school and her lesson was covered by Miss Torrey (cover supervisor). However, Miss Torrey was unavailable for interview due to other commitments.

On visit three, as Joe was absent, I was able to have extended time with Mrs Smyth, Mrs Peterson, Mrs Lennie, and Mrs Calle. Again, interviews took place in the SENCo office, with staff being available in timetabled non-teaching ('free') lessons to meet with me. On this occasion Miss Kirkhill was not available due to her re-arranged timetable from Joe's absence. These interviews enabled me to further explore some of the previous responses that had emerged.

I met with Joe in the SENCo's office as it was a familiar place for him with easy access from the SEND department where he ate his break and lunch, and to where he returned at the end of the school day. For visit one and two, Joe's morning interviews took place during afternoon registration as he had said that he wanted his lunch and break times

with his friends. Joe's afternoon interviews were time limited as he had to catch the bus home. For visit three, Joe met with me on his arrival into school and spoke with me until he had to leave for his first lesson. This was a timeframe of approximately 30 minutes.

3.8.4 Interview analysis

Interview data provided narrative information on what Joe understood about himself and the roles of others in classroom relationships, his perspective of the ways he participated in different types of tasks and what he experienced as his strengths and challenges in activity. Teachers' interviews provided narrative information on what was influencing the types of activity they organised and what was guiding how they perceived Joe as a member of their class. TAs interviews gave a narrative insight into their experience of working with Joe and their perceptions of classroom roles and relationships.

The interviews were digitally recorded and transcribed verbatim. The transcripts for visits one and two were checked with interviewees during my final visit; the final transcripts were emailed to staff prior to the end of the summer term and they were invited to respond by phone or email. All interviewees verbally agreed that what had been typed was accurate. Joe's final transcript was verbally checked for accuracy with him during a visit I made to his school for work.

Thematic analysis was applied through three stages of coding for each participant. The purpose of coding is to organise discourse into themed 'units' of meaning to reduce down data as a manageable way of interpreting it (Cohen, Manion and Morrison, 2011). To do this, each sentence was colour coded as different themes emerged in the descriptions of actions and experiences within each transcript. These descriptions were then re-organised into a table format under the appropriate heading - for example, 'school organisation'. I used my reflections to consider and apply what each theme signified using Rogoff's planes of analysis. This re-organisation revealed the differing influences of

experiences shaping expectations, understandings, and actions in classroom activity. This enabled observational data to be cross-referenced to interview data to answer my research questions to capture the context of the setting.

3.8.5 The place for researcher reflection

Reflection, as a sociocultural process, is important to transform the ways people participate in activity and make sense of their experiences (Rogoff, 2003). Within qualitative research it is particularly important that a researcher acknowledges the ways their own experiences, values and biases have a bearing on the research process (Cohen, Manion and Morrison, 2011). Therefore, it was important I reflected on my experience of being in Joe's classes and my own biography as a mother and professional involved in autism and experienced in working in mainstream schools. My professional role as a Specialist Autism Advisory Teacher and Autism Education Trust approved trainer has required me to have an in-depth knowledge of the *SEND CoP* (Great Britain. DfE and DoH, 2015) and to review the ways school staff and parents understand and implement it to support young people's access to education. I was then familiar with reviewing the school's policies to explore how the CoP has been interpreted and implemented within their other documents, such as curriculum and behaviour policies. My review of school policies and the *CoP* (Great Britain. DfE and DoH, 2015) was therefore influenced by my professional practice and experience attained prior to the start of my doctoral research (see Literature Review).

Researcher reflection as a research tool is useful to identify researcher bias (Cohen, Manion and Morrison, 2011) that could threaten to reduce the credibility of the study findings. Given my professional experiences that I have outlined above, I kept a research journal of my thoughts and feelings that emerged during the research process from what I had witnessed in Joe's lessons and interviews following each visit. I also considered Rogoff's (2003; 2005) explanation of transformation and how this applied to me as a researcher. Rogoff's explanation has highlighted that as an individual is faced with a novel

context, they simultaneously examine their participatory appropriation. This process is fundamental to the way people make sense of their membership and guides the way they participate in activity as community members. An individual's participation in sociocultural practices is then always active.

I reflected on my place in the research process. As a researcher in Joe's lessons, I was an active participant in the sociocultural practices of his school. My role was to generate rich, contextual data while I observed classroom activity and how Joe participated in comparison to his peers and adults. The observation notes I wrote down were fundamental to exploring the lived reality of Joe, his teachers, and TAs during interview. My later interpretation of participants' responses therefore needed to be rigorous to address the research questions of my study in both data collection and analysis (Cohen, Morrison and Manion, 2011). The findings and their analysis are presented in this report (see chapters four and five respectively) to offer Joe's perspective of his experience of classroom activity.

Researcher reflection was helpful to challenge my interpretation of an autistic individual's experiences across a range of subject areas founded in the realities Joe's teachers faced in the classroom. When employed as a secondary school teacher myself, I rarely had the opportunity to teach and negotiate the curricula of other subject areas or witness the variable ways a particular child may respond to changes in literacy and social expectations of different lessons. Reflection was also helpful as a review mechanism to inform and shape changes within my study. For example, I included TAs in the main study. I had not done this in my initial study. This was because in my pilot study school, TAs were deployed to lessons based on teachers' specific requests for an additional adult when a pupil with SEND was judged by them to need help accessing curriculum learning activity. In my pilot study, the young person had not been assisted by TAs, and only one lesson had requested TA attendance. In this way my use of observation within Joe's lessons, interviews with Joe, his teachers and TAs, and researcher reflection on the day of my visit, aligned with the epistemological stance of my study that experiences shape

the way a person understands the world and their place within it. The inclusion of TAs in interviews was then important to the validity and credibility of my study as they were a fundamental part of Joe's classroom experiences.

3.9 Relevance of the methodology to a sociocultural viewpoint

This study provided the opportunity to reflect on Joe's experiences and consider the influence of school policies and practices and individuals' experiences on his teachers' and TAs' patterns of engagement in their in-the-moment classroom actions and discourse. This enabled scrutiny of community practices and individuals' repertoires of practice for the opportunities these accorded responses to Joe to be personalised and his membership and participation to be transformed.

Cohen, Manion and Morrison (2011) suggest that singular methods of data collection alone (for example, an interview) are insufficient to generate rich data and depth in understanding. To counter this, and to give greater credibility and relevance to the findings from my research questions, I used multiple data methods (observation, researcher reflection and interviews) to generate a more accurate and holistic insight into the ways Joe's experience was being shaped by the values being transmitted in the sociocultural practices of school staff during classroom actions and discourse.

Cohen, Manion and Morrison (2011) note that participant control is important to participant motivation and confidence to speak openly within interviews, and for the participant to engage in daily activities as they usually would. Participant informed consent and the right to withdraw at any point were important for ethical and moral purposes. Thus, Joe and school staff, as volunteer participants, were empowered to engage in their usual activities within the research process from their knowledge of the

explicit purpose of the research, their role and right to withdraw, and my role as an independent researcher undertaking doctoral research.

Credibility and trustworthiness through authenticity were important within this study to enable Joe's teachers and TAs to reflect on what they understood about Joe's differences in social communication and interaction in relation to his peers, and to reconsider how he participated in classroom activities (Cohen, Manion and Morrison, 2011). This insight offered Joe's teachers the opportunity to re-evaluate their accountability to Joe's progress as a pupil with SEND and the actions they could propose or take to adjust their teaching and organisation of TA time to meet his interaction and communication needs more effectively. My study offered the opportunity for Joe's teachers, TAs, and Mr Jones to reflect on teachers' accountability to the curriculum, the role of TAs to engage Joe in learning activity and established, 'accepted ways' of working that positioned Joe as low-ability and restricted his opportunities to evidence his greater verbal abilities and develop his peer relationships. As had been the case in Conn's (2014a; 2014b) study of Kyle, reflection provides the opportunity for practices to be changed in the light of new understandings.

In my next chapter (four) I present the findings from my study using Rogoff's (2003) sociocultural conceptual framework. These provide the basis for discussion in my concluding chapter (five).

Chapter 4 Rogoff's sociocultural conceptual framework for understanding Joe's experience, participation, and membership within his community of learners.

4.1 Introduction

My study explored Joe's experiences of community membership from the activities and relationships he experienced in five mainstream lessons. The sociocultural perspective and framework of my study, which investigated community, social and individual influences on how different people participate in shared activity, was guided by Rogoff's (1995;2003;2005) concept of transformation of participation and planes analytical framework. This framework allows different aspects of activity to be the focus of analysis and so provides an explanation of the different influences shaping the roles and contributions members make. Furthermore, examining the dynamics and tensions which influence the ways different community members participate offers the opportunity to reflect on how individual and community values, and what is understood about the differences between people, has the potential to be transformed – for example how ability is conceptualised, enabled and valued. My unique contribution was to investigate the sociocultural dynamics guiding Joe's perspective of his experiences as a member of his learning community. My study thus investigated the sociocultural practices of Joe's school. In particular, I focused on the way learning activity was organised and the shape of roles and relationships between different members that was evident in the actions and discourse that took place in the five lessons that I observed. Actions and discourse, as cultural resources, were a particularly relevant focus for this study given the difficulties in relationships common to autistic adolescents (Jackson, 2003) and their greater risk of underachievement and isolation (Hay and Winn, 2012). To uphold research integrity and credibility to the sociocultural perspective, and the analytical and conceptual framework for investigation developed by Rogoff (1995; 2003; 2005), her terminology was consistently applied throughout data collection, analysis, and discussion.

The review of the literature suggested that Rogoff's (2003; 2005) concept of the transformation of participation in cultural activities provided conceptual tools which would be useful for analysing Joe's experience as a member of his community of learners. I conceptualised Rogoff's planes as aspects of social activity which allow the complex relationships between people, time and place to be individually scrutinised to reveal the lived experience of a community, a specific group within a community or an individual

member. In my study I sought to investigate Joe's experience of membership as he participated in the shared endeavours organised within the worldview (Rogoff, 2016) of his community's learning tradition.

Rogoff (2003) has identified that while the focus of analysis is determined by the researcher, the information that is available from all the planes must be considered to give a better understanding of the meaning of activity for members. Investigating different influences on activity can identify the contribution of complex social contexts and actions to an individual's experience. Joe was one pupil amongst peers, all of whom had a range of needs and abilities in the five lessons I observed him in, within one mainstream secondary school. My analysis specifically looked at the influence and impact of the different planes on Joe's participation and how he identified himself as a member. The framework of my analysis thus focused on Rogoff's (2003) concept of the institutional, interpersonal and intrapersonal planes (see chapter two) that interplay to construe how people participate in shared endeavours and guides how they identify themselves as community members. The framework also helps to identify opportunities for transformation which arise from the way in which individual members respond in their actions within the established practices and values of their community and its worldview (Rogoff, 2016). This analysis acknowledged that Joe, his teachers, peers, and TA's were members of their school community and experienced in its routines, practices, relationships, and use of tools for shared endeavours. Analysis of activity and relationships using the framework of the planes thus provided different lenses to examine classroom actions and roles and how these were being influenced by individual and community experience.

Meaning making is omnipresent, social and transactional between people (Rogoff, 2003). Analysis of actions, discourse and artefacts enabled me to investigate the dynamics of sociocultural and personal processes shaping opportunities for Joe to transform his membership and participation within the learning tradition of his school. I conceptualised dynamics as the impact different aspects of social activity had on an autistic individual,

Joe, within his experiences of five regular mainstream lessons. My data was therefore focused around Joe and provided a snapshot of his lesson time as it occurred. Thus examining the environment and the resources available, such as policy documents and observation of classroom activity, shed light on Joe's classroom experience, community membership and the transformative possibilities these accorded Joe, his teachers and TAs as members of their community. In particular, I reflected on the interactions between the planes to give an account of the sociocultural processes contributing to his participation in curriculum activity and what he understood about membership. My analysis of the influence of the institutional, interpersonal, and intrapersonal planes, as they were identified within the context of five observed lessons, addressed my research questions on the sociocultural processes and transformation possibilities shaping Joe's experiences. The use of the planes as a framework of analysis guided my discussion (chapter five) on worldview differences and the influence these have on a community and its members - for example, on the way membership is shaped from how learning is conceptualised, organised and assessed given the diverse range of learners and experiences in classrooms. Therefore, my research questions drew on Rogoff's terminology and concepts to investigate Joe's experience of classroom activity and relationships. The sociocultural perspective of learning being a transactional relationship of context, activity and experience was fundamental to my investigation of the application of Rogoff's (2003,2005) concept of the transformation of participation in cultural activities to understanding the experience of Joe's community membership.

Joe's experiences were central to my study. Rogoff's (2003, 2005) concept of the transformation of participation in cultural activities provided the theoretical framework to scrutinise the dynamic, complex interaction of the sociocultural planes within the learning tradition of Joe's community. My findings and analysis of the sociocultural organisation of activity and relationship arrangements offers a unique and in-depth insight that links theory to the realities of Joe's classroom experiences and the opportunities for these to be transformed. They also foreground the tension between two different worldview positions proposed by Rogoff (2016): the interactional (psychological) and transactional

(sociocultural). This chapter presents the study findings and concludes by highlighting the significance of the different planes on how Joe was responded to within classroom activity and relationships and the ways these shaped his experiences and perspective of his community membership. The chapter is organised to address each research question in turn. These research questions were:

RQ 1: How is one autistic child's classroom experience shaped by understanding of the autistic individual in the intrapersonal, interpersonal, and institutional planes?

RQ 2: What experiences does an autistic pupil (Joe) have in five classrooms within his secondary school?

RQ 3: What dynamics and practice are operating in the intrapersonal, interpersonal, and institutional planes that shape Joe's lived experiences?

In the first section, Rogoff's (2003;2005) concept of learning traditions as historic community frameworks guiding activity and relationships helped me to explore the influence of the institutional plane on classroom members' repertoires of practice and participatory appropriation. My focus on the institutional plane has enabled me to account for the wider sociocultural context of Joe's experience and the actions and roles that took place in his lessons. This responds to RQ 1 by considering how adults' organisation of activity influenced Joe's experiences.

The second section will move to the intrapersonal plane and develop Joe's perspective. This will further an understanding of how the dynamics between the planes were shaping how he identified himself as a member of his learning community. In this section I respond to RQ 2 from analysis of contextual data of observations of how Joe participated in

classroom activities and interview data on what he had learnt from his experiences of tasks and relationships. This section applies Rogoff's (1995; 2005) concept of participatory appropriation. It foregrounds Joe's repertoires of practice as demonstrated in his actions and his participatory appropriation revealed in interviews. It will help identify what Joe was learning from the implicit and explicit classroom activity and the relations in the interpersonal plane which were guided by community expectations. This exposes the tension created by the different worldviews of the interactional (neoliberal) position of the school system (see p.32 in chapter two) , and the transactional experiences of individuals' daily lives. These are interrogated within the theoretical framework to expose the tensions and the influence of different planes on classroom activities and the roles that Joe, his teachers and TAs assumed within this setting. In this section I investigate the influence of Joe's understandings and responses to activity and relationships.

The third section considers repertoires of practice (see literature review). This section discusses the responses of teachers and TAs that emerged in the interpersonal plane. It responds to RQ 3 and examines the influences of the community and personal planes on classroom activity and roles. In particular, it was important to analyse how Joe participated in mainstream classroom activity designed to help him progress in the curriculum alongside his peers within his different lessons.

4.2 The influence of the dynamics between the planes on what is understood about an autistic individual.

Whilst autistic people experience interaction, communication, information and sensory processing in a different way (APA, 2013), they nevertheless have the desire for social connectivity (Williams, 2010) and form relationships that show similar patterns to their mainstream peers (Conn, 2014b). People with autism are individuals and autism affects each differently (Dicker, 2018; Beadle, 2018). It is therefore important to recognise the individual rather than make assumptions about 'autistic people' (Attwood, 1998; Jordan,

2008; Conn, 2014b). This is particularly important with the classroom as responses to autistic pupils are critical for their participation and affective experience. Joe would be forming his self-identification from the way that his teachers and TAs responded to him.

This section responds to RQ 1. It is organised to explore Joe's experiences of classroom activity and relationships and the ways these responded to his interaction and communication differences as an autistic individual. It examines the effect of the standardised approaches teachers used to present information to all pupils and of the priority accorded to literacy on Joe. This was central to his experience of participation and what he understood about his strengths and challenges from his engagement. I then consider the significance of what was understood about Joe as an autistic individual on his perception of himself as a community member.

4.2.1 The priority accorded literacy

The way activity is organised, relationships are arranged, and information is presented transmits the purpose of activity (Rogoff, 2003). Difficulty in identifying pertinent information that is not made explicit or is not clearly presented, negotiating social situations with unfamiliar people and processing abstract thought are common difficulties associated with autism (Attwood, 1998; Jordan, 2008). In Joe's classroom the priority was on literacy and the transmission of curriculum knowledge from adults to pupils. This emerged in different formats of known-answer-question approaches. For example, Mrs. Lennie (History One) asked Joe 'When were the soldiers told the war would end?'; Mrs Lennie expected Joe's response to be 'At Christmas' as this is what she had told the class. Joe's response of '1918' reflected his knowledge of when the war ended and what he had interpreted from her question; he had not inferred she required the perspective of a soldier at the time of the war. In each lesson, I observed that Joe copied teachers' notes from the board and co-constructed written, verbal, and practical tasks with TAs during independent mixed-ability groups. Observation and interview data indicated Joe's belief that the purpose of lessons was the acquisition of the curriculum knowledge

necessary for success in public examinations (at the end of Year 11). Joe's experience of the organisation of activity and role of teachers within it reflected an interactional worldview (Rogoff, 2016). This had positioned him as a 'apprentice' in curriculum knowledge and therefore he depended on teachers to achieve success. For example, Joe explained:

I have to listen to what the teacher says if I want to pass my GCSE's, and I want to pass them. So, when they give me feedback or point out a mistake or something I have done wrong, it helps me to know so I can learn. Tests and quizzes are too difficult when the questions are too hard and I can't figure them out and do certain questions – some are simple and some are not – so I find assessments hard, because I have to remember it all (Joe, Interview, July 2018)

Joe's description made it clear that for him to be most successful in curriculum activity, teachers needed to adjust activity and consider his interaction and communication needs. Without such adjustments Joe struggled to understand what he was expected to learn. He explained:

I feel really stressed when I don't understand what someone is saying to me – I don't know what they're talking about because I haven't seen or done it before. I feel left out and lost. I wouldn't be able to get as high a grade as I wanted to do if they don't explain it to me. (Joe, interview, July 2018)

Joe's description highlighted that people's responses to him in transactional activity influenced what he understood, how he felt, and how he could participate to be successful. This suggested that what others understood and how they responded to him as an autistic individual were important and influenced his opportunities for success.

The focus of activity on curriculum knowledge and specific literacy abilities had a significant impact on Joe's affective state, which itself was influenced by what he perceived was expected of his literacy abilities and curriculum knowledge in lessons:

I feel a pressure on me, like if I don't get my work finished on time or I get the wrong answer; I want people to see that I'm an autistic person who does want help instead of not doing anything; that I have knowledge and that I am trying my best is important. (Joe, interview July 2018)

Joe's autistic diagnosis and how he was responded to as an autistic individual was important to his ability to 'fit' with what his teachers required him to do to be 'successful' in lessons in the tacit ways they were expecting. Joe's handwriting and ability to integrate his thoughts with his manual dexterity created a significant challenge for him; Joe then 'became needy' by virtue of the priority accorded literacy and when what he had been asked to do was not adjusted for his autism.

4.2.2 Negotiating uniform approaches

What is valued, prioritised, and expected within a community is transmitted through actions, discourse and the way activity is organised (Jordan, 2008). The context of activity then provides important social information about the priorities that are being acted on and how these shape an individual's experience of shared endeavours (Rogoff, 2003; Rogoff, Matusov and White, 1996; Khader, 2012; Buchanan, 2015). The use of uniform tasks that did not differentiate for Joe's interaction, communication and motor-control needs created an invisible barrier to his opportunities to transform his curriculum knowledge and show evidence of this. The invisibility of his autistic differences prevented him being perceived as 'able'; Joe identified himself as 'less able' than his peers in mixed-ability groups and 'more able' in his low-ability peer groupings. The priorities accorded literacy skills alone, the attention given to these by adults in the actions they took in class to negotiate accountability to the curriculum and the support that was 'given' to him demonstrated the

powerful influence of the interactional worldview of learning within his school community.

Joe's discourse revealed his perception that teachers required legible, handwritten work for them to assess and provide feedback on his curriculum knowledge. A higher incidence of motor co-ordination difficulties that inhibit manual dexterity has been noted within the autistic population (Attwood, 1998) so it is unsurprising that Joe found this difficult. Joe said that his thought processing and communication of ideas via a handwritten format were specific challenges for him. These are common issues within autism (Attwood, 1998). Joe's autistic differences were not recognised as a barrier to his participation in classroom activity that prioritised the production of legible handwriting for assessment purposes. Joe explained how his difficulties in integrating his thoughts with his writing in the time available to him in tasks influenced his judgements of his success in meeting his teachers' expectations:

Writing is a problem because I have to write down a lot of things and I'm a quick writer but I'm having to write a bit slower, and I'm trying to do that – especially in my English because I write too quick. That causes me to go off page and no Misses (teachers) can read my work, and I can't read my work. So, I have to write more slowly. I write quick so I can get all my work done and when you finish your work first you get some relax time and then you wait for the next thing to pop up. But I feel good when I finish the work because that's what the teachers expect me to do. (Joe, interview July 2018)

Handwriting was particularly stressful for Joe. He had to engage in handwriting to evidence curriculum knowledge but if adults scribed for him, he was then portrayed as 'different' from his peers.

From observation of his response in lessons and from what he said in interview, it seemed that Joe identified himself as a member of his community of learners by comparing himself to his peers, and taking into account the way learning activity was organised by adults. Joe explained:

Usually in lessons I find it easier when there is something to explain about
- how it's happened, how it's taken place, and when they explain what it is

about and give an example after. Tasks where I talk to other people are helpful. Working on my own is way easier than talking with friends or telling them the answer or question. On my own there is no one to distract you. Lessons are for learning things that we haven't yet discovered, about facts... The easiest way for me to get information is probably through talk or through paper that tells me facts and information. Watching a video is easier for me than paper. (Joe, interview, December 2017)

Joe's reflection showed that the activities he found easiest were discussion with a person he feels comfortable with, working independently to help him to focus, reading activity, and practical-visual tasks, such as watching videos. He said that being able to relate new information to his experience was valuable - thus the emphasis on abstract content and written activity in Science One was particularly problematic for him. Conn (2014b) points out that care needs to be given to the presentation of information and assessment of understanding for people with autism. She suggests that young people with autism:

may have specific difficulties with the achievement of skills in literacy and numeracy, and difficulty understanding concepts within the topic content of curriculum areas (Conn, 2014b, p 116)

Given this inherent challenge in information processing, the ways that known-answer-question format of classroom activity were used affected how Joe was able to respond. For example, when he was not forewarned that he was going to be asked to give a verbal answer, Joe had not had sufficient time to find the information in his book (Science One). Mrs Peterson then found it for him so he could reply. In History Two the use of ambiguous language in the question of 'When were the soldiers told the War was going to end?' had not made it clear that Mrs Lennie was seeking the perspective of soldiers in 1914. Joe's response of '1918' was based on his knowledge of information about events of which soldiers at the time were unaware. These examples of Joe's participation in activity indicated a lack of understanding not only of how verbal language is interpreted by autistic people, but also the need for forewarning to support transition in thoughts and actions for individuals (Attwood, 1998; Jackson, 2003).

Analysis of Joe's lesson activity suggested that teachers followed the assembly-line learning tradition (see Chapter two), that reflects an interactional worldview of education (Rogoff, 2016), and corresponding engagement patterns and repertoires of practice were evident in the focus accorded literacy (Rogoff, 2005) and the way Joe was responded to by teachers and TAs (Humphrey and Symes, 2011).

4.2.3 The significance of what was understood about Joe to his experience of participation and membership

Rogoff (2003) states that people gauge their own and others' membership during activity and this influences how they participate - for example, as leader or follower. Thus, interactions between people become fundamental to individuals' participation. The literature review had highlighted that autistic individuals have difficulty within relationships because of their anxiety (Jackson, 2003) in reading social referencing cues (Rogoff, 2003). The self-management of emotions necessary to be a proficient learner (Ashburner, Ziviani and Rodger, 2010) and the consequence of being misunderstood by others and interpreting social cues have been reported as resulting in feelings of isolation and rejection (Williams, 2010; Birch, 2006; Jackson, 2003). Given the interpretation of, and response to, the demands of social settings are stressful (Attwood, 1998; Sainsbury, 2009) and the affective experience of relationships has a consequence on how accepted an autistic individual feels, actions and discourse in the interpersonal plane are important opportunities to negotiate membership. After each of the lessons which I observed, Joe had completed a relationship circle (see appendix 5) to show visually whom he had perceived as being most significant to him during the activity in that lesson. This was to ascertain how the activity and the actions of others were influencing how he identified himself as a member of his community of learners. In interview, Joe explained his decisions as to where he had placed TAs, teachers, and his friends for each relationship circle.

Analysis revealed Joe's relationships with TAs were important to him. For example, in Science, Mrs Peterson had scribed for him in both lessons, and in Science Two she had organised dialogue between Joe, Jessie and herself. In Music, Miss Kirkhill and Joe had worked away from the main teaching area. In History, Joe had shared activity with Tyler and Miss Kirkhill; he subsequently identified Tyler as his most significant relationship. This reflected the adolescent transition to peer approval and acceptance described by Hay and Winn (2012). Analysis of my observation of Joe's responses in classroom activity suggested that his interactions with TAs and what they understood about him, were fundamental to how he participated in independent learning tasks.

4.2.4 Peer relationships

Relationship shifts in adolescence represent a transition from children seeking adult acceptance and approval to young people's desire for peer group belonging (Hay and Winn, 2012). The acceptance of this shift as a goal of social development in the transformation of young people's participation that serves a cultural, social, and emotional purpose, places importance on the opportunities Joe and his peers had to work together and negotiate their relationships. In interview Joe described what it meant to him to work with familiar peers:

I like to work with others [friends] so I can help them out, and I feel good that I can share what I know. My friends help me out and I help them out. My friends are important to me. I am afraid that people will talk about me behind my back...Friends are important through all your life and they don't go away unless they want to. Friends offer you conversations and someone to work with and make me feel supported. I get left out and have nothing to do when my friends talk to other people and I feel quite lonely. I feel uncomfortable meeting new people because you don't know who they are exactly, so you don't know what their personalities are and what they do or what's their thing so I'm very uncomfortable about people. Getting to know someone and

having a relationship means I have support and help with things. I feel included. (Joe, interview July 2018)

Joe's experiences of friendships and familiarity with other people had an evident impact on what he felt about himself. As in the study of Hay and Winn (2012), being accepted by peers, as friends, was important to him. However, unlike his peers, Joe was not accorded a choice as to whether he worked alone or with peers. The focus on the curriculum, literacy, and the support he received in handwritten tasks meant Joe's choices had been 'controlled' by the adults. For example, his teachers' perceptions of pupils' academic abilities and social/emotional abilities influenced how they organised seating plans and where Joe sat. In Music, Mrs Calle had given all pupils a free choice of partners; however, Joe's choice was limited by her experiences of Joe's historic difficulties with his peers that had resulted in him refusing to take part in group activity. As a result, Joe worked with Miss Kirkhill away from his peers.

4.2.5 Teacher relationships

My data evidenced the use of known-answer-questions posed to pupils by adults in Joe's lessons which reflected the expert-apprentice relationships common to Western schooling (Rogoff, 1990) and an interactional world view of education (Rogoff, 2016). In Maths and English, Joe had participated in co-constructed activity with his teachers; he subsequently identified them as 'most significant'. The ways his teachers responded to him was significant; how Joe was perceived by his teachers was important to him, and he viewed them as authority figures in the adult-young person relationship with which he was expected to comply. Joe had described his perceptions of his teachers' roles as being 'educators' responsible for giving the knowledge he needed to pass his future GCSE examinations. Joe further added:

If the teacher tells me what to do I do it because I'm that kind of boy. It's important to me that I do what the teacher expects. (Joe, interview March 2018)

Joe's compliant responses, seen in classroom interactions and his interview, suggested a vertical relationship of 'expert-apprentice' between himself and his teachers. Joe accepted his teachers had more knowledge than him and he relied on them to develop his subject learning. Gaining teacher approval through his compliance was important to how Joe identified himself as a learner in his lessons. Opportunities for Joe to transform his relationships were then established in adults' and Joe's acceptance of the relationship structures within his lessons. The 'adult-young person' relationship in Joe's lessons thus reflected an assembly-line learning tradition community of learners (Edgar, 2012; Rogoff, 2003) and was aligned to an interactional worldview of educational activity and relationships (Rogoff, 2016).

4.2.6 TA relationships

The way Joe participated in activity in comparison to his peers emphasised that to produce the same work his teachers expected of his peers, Joe required additional support. The school's response to Joe as an autistic individual was provided by two TAs across the school day. Acker, Knight and Knott (2018) have noted that the sensitivity of TAs to autistic adolescent males' desire to be seen the same as peers is important to how they feel about, and accept, the support offered. In interview Joe described his relationship with Mrs Peterson:

She's a good TA. She's been working here for loads of years now. That's helpful for TAs. We do cooking and materials together. She knows me well – she gave me loads of presents at Christmas time. She understands the things that are important to me and the things I worry about too. (Joe, interview March 2018)

TA deployment on the basis of a pupil's SEND had accorded Joe the opportunity to develop a relationship with her that was meaningful to them both and which supported his emotional needs.

Joe described his relationship with Miss Kirkhill:

I know what her real name is. She tries to convince me to work, and it works. We have a good relationship. I like to please her. She helps me feel more confident. I want to feel confident, it's important to me. She tells me what to do and what I could think of. She doesn't sit by me all the time. She goes and sits by some when they are stuck or naughty. I don't like being looked over all the time. She knows me best. I spend most time with her. (Joe, interview March 2018)

Joe's description indicated his fondness of Miss Kirkhill; he appreciated her presence and sensitivity to his confidence and ability to respond to tasks.

Given that the fundamental ability to adjust and respond to another person's social referencing cues is essential to manage their social-emotional needs (Rogoff, 2003), the organisation of consistent TA support appeared to be important for Joe to function effectively in classroom activity. The difficulties autistic individuals have in reading and responding to others, as documented in the autism literature and personal accounts of autistic individuals (see chapter two), appeared to have created the opportunity for TAs to plan and develop effective interactions with Joe.

Joe explained the impact of working with TAs for him:

I work mostly with the TA in lessons and that limits me getting to know other people. But it helps with my academic learning – in science they [TA] help me with knowledge because I don't understand chemistry. (Joe, interview July 2018)

The distinct differences in TA and teacher roles in Joe's experience of their responses to him in curriculum activity emerged to be significant to the opportunities Joe had to transform his learning and to develop his peer relationships. My study revealed that, as in the studies of Humphrey and Symes (2011) Symes and Humphrey (2012), and Acker, Knight and Knott, (2018) (see literature review), the deployment of TAs had a huge impact on Joe's emotional well-being as well as his access to the curriculum. Joe thus became reliant and needy of support from TAs and frustrated that his autism was not responded to. Rogoff's (2003) suggestion that institutional values influence repertoires of practice and participatory appropriation, was evident; it was apparent that the dominance of curriculum and literacy values influenced classroom repertoires of practice which did not accord Joe the opportunities to transform his membership and participation in the same way as his peers.

4.3 Joe's experiences as an autistic individual in five mainstream lessons:

The assembly-line learning tradition is a distinct arrangement historically underpinned by the cognitive-developmental paradigm and wider institutional focus on economic productivity (Rogoff, 2003; Edgar, 2012). This emphasises the formal testing of specific knowledge and skills through public examinations, the results of which influence the different opportunities a person has in adult employment (Edgar, 2012). Joe, his teachers, and TAs were conceptualised as members of their learning community (see literature review, p65). If it is accepted that members of a

community are apprentices in the ways of 'doing and thinking' inherited and developed over generations (Rogoff, 2003), the activity and relations that took place in Joe's lessons were guided by inherited values and traditions and beliefs about the purpose of shared endeavours and relationships.

However, transformation of participation is fluid and accounts for variance and development in the different planes. Thus traditions, values, and resources all have the potential to guide how activity is organised and relationships are arranged as well as the opportunity for challenging accepted practices and beliefs. I observed Joe's participation during each subject lesson over two visits and how he was responded to by adults and his peers. Joe's timetable that shows the order of lessons, subject and school staff who were present is set out in appendix 3. Given that members are apprentices in community ways and values (Rogoff, 2003), to address RQ 2, I reflected on Joe's perceptions of each of his lessons. First, I examined the influence of apprenticeship on repertoires of practice in classroom activity. This was because the context where activity takes place holds meanings about the purpose of activity (Rogoff, 2005). Secondly, I explored the influence of apprenticeship on experience and reflected on what was guiding classroom roles and activity as these were fundamental to Joe's experience as a member of his community. Next, I investigated the opportunities for transformation in accepted practices to explore the interplay between context, roles, and activity in Joe's lessons which shaped his experiences. This focused on Rogoff's (2005) concepts of apprenticeship, repertoires of classroom practice and participatory appropriation. I then gave regard to Joe's perceptions developed from in-the-moment experiences and values which were guiding classroom actions and responses. Finally, I scrutinised the influence of apprenticeship and repertoires of practice on Joe's experience of membership in lessons as an autistic individual within his community of learners.

4.3.1 Apprenticeship in repertoires of classroom practice

I reflected on, and categorised, the activity that I observed to establish the format of interactions during in-the-moment activity within each of Joe's lessons that was a particular, established social 'system' in which community members were apprentices (Rogoff, 2003; 2005). For example, when exploring Joe's perception of the assessment activity that had occurred in English One, and where Miss Prince had scribed for him. Joe was clear he needed a scribe because producing legible handwriting was a slow and challenging activity for him:

I worked with a teacher because my handwriting is really poor, and they've quicker writing than me, and the words don't come out properly so I can't read it properly. They have a reader and writer for me. (Joe, interview, December 2017)

Joe thought that success in curriculum and assessment tasks necessitated adult support.

Despite Miss Prince's use of a seating plan, some of Joe's peers had been disruptive - for example, they called out across the class despite being under 'exam conditions'. Joe appeared tolerant of this behaviour by waiting for Miss Prince to 'deal with' these behaviours before she re-engaged with him. I asked Joe how he felt when other pupils behaved disruptively. He explained:

Very disorganised, it distracted me and makes me feel stressed because they are doing things wrong, and I know that, and they try and get out of the situation, but they can't. The stress is very uncomfortable, and I have to just let it happen. (Joe, interview, December 2017)

Joe's explanation revealed that compliant behaviour was important to him. It was stressful for him when others did not conform. Whilst this stress was problematic for him, Joe had learnt to accept it. Activity thus provided evidence of the values being transmitted and how participation was being organised as it occurred in Joe's lessons.

Within each of Joe's lessons observed there were three types of activity:

- i) Administration tasks (i.e. mandatory tasks the teacher was expected to do in addition to teaching – admit pupils into the lesson; register pupils and dismiss pupils from the lesson).
- ii) Organisational tasks (i.e. tasks that were necessary for pupils to participate in activity – for example distributing learning resources (stationery, equipment)
- iii) Curriculum tasks (academic learning opportunities)

I recorded how teachers organised activity in the 60-minute timetabled lesson to establish how much curriculum time they had available to teach syllabi content once their mandatory activities and organisational activities had been completed (see appendix 6).

Analysis of the observational data made it apparent that the available time for lessons was influenced by the travel time between different areas of the school that was not accounted for within the timetable. This meant that the location of the lesson in relation to that of the previous lesson had implications for teaching time; so too did the time of day - for example, after a recess. Once in class, teachers spent varying amount of time on administration tasks. For example, an unexpected room change significantly increased the amount of time it took Miss Prince to settle the class into curriculum activity for English

One; difficulties with the computer network delayed registration for Mr Pyman (Maths) and Miss Calle (Music).

Task organisation also varied dependent on the availability of resources. For example, there was not enough paper for pupils to use in Science Two; in History Two Mrs Lennie had to wait for pupils to return with textbooks from another classroom before she could start the main learning activity. The consistent routine of administration, organisation and learning activity in all Joe's lessons showed that teachers directed and led activity in a way that was consistent with Rogoff's (2005, p10) description of an assembly-line learning tradition.

4.3.2 The influence of apprenticeship on experience

Rogoff (2003; 2005) has suggested that repertoires of practice emerge as responses to experience in community activity. Repertoires of practice includes the roles and responsibilities people assume as a member of their community. The role with which an individual identifies is socially construed and influences how they experience and participate in activity – for example, as a leader or follower. In my study, observation and interview data highlighted the tacit acceptance of teachers' responsibility to manage classroom activity. For example, pupils and TAs responded amenably to teacher direction and requests. This social organisation was then significant to Joe's experience of the type of activities and relationships available to him in the assembly-line 'learning tradition' (Rogoff, 2005) that permeated each lesson. This established that Joe's opportunities to participate as a learner with autism were shaped by the authority teachers held over TAs and pupils in classroom activity. Teacher actions and how they organised activity significantly influenced opportunities available to Joe's transformation - for example, in the way he presented his curriculum knowledge in comparison to his peers. My analysis focused on the dynamics between the institutional and intrapersonal planes to explore

how Joe's experience was being guided by this interplay within activity and then classroom roles.

4.3.3 Interplay guiding the organisation of activity

My findings about curriculum activity evidenced that teachers organised activity as whole class group, and as independent, learning tasks. Joe's EHCP gave specific strategies for teachers to adjust the way they presented information for him so that he could more easily manage and record his work. My focus on learning activity and the interactions that took place within it, showed that similar and distinct patterns of engagement were evident in actions and discourse. Given that responses communicate explicit and implicit meanings, such as through social referencing cues (Rogoff, 2003) and that interaction and communication are areas of difficulty for autistic individuals (Attwood, 1998; Jackson, 2003; Dicker, 2018), I explored how Joe, his teachers and TAs were co-ordinating their experiences.

The organisation of activity and presentation of information reflect the dominant values prioritised by an individual (Rogoff, 2003); dominant values may be personal or institutional, such as learning being regarded as cognitive-developmental or socio-cultural. Analysis of the lessons I observed identified the four different types of curriculum tasks. These were verbal, such as questions and answers; written - for example, pupils completed worksheets; practical/visual, which included watching video clips and using subject specific instruments; and reading texts from books or sheets. Regardless of their type, tasks followed a known-answer-question format (Rogoff, 2005, p 7). This format, whereby the answer to the question posed is already known to the teacher, is common within Western schooling (Rogoff, 2005; 2003), and fitted with an assembly-line learning tradition of instruction with knowledge being transmitted from 'expert' to 'apprentice' that contrasts with an apprenticeship approach such as 'learning by pitching in' (Rogoff, 2005).

I scrutinised the way Joe was responded to in the curriculum activities in comparison to his peers. It was apparent from observation data that responses to Joe depended on whether the task was whole class led by the teacher from the front (adult directed activity), or a learning activity (written or reading task) set by the teacher for pupils to complete independently (adult guided activity). This revealed that in comparison to his peers, who worked independently of adults, Joe worked with Mrs Peterson and Miss Kirkhill during activity. This was for 244 minutes (61%) of the total lesson time across visits one and two. Of this time, a total of 102 minutes (25%) was in adult directed activity (for example, when he was told what to do in History), and a total of 142 minutes (35%) of this time was in adult guided activity - for example, co-constructed tasks with TA in Music. In comparison, his peers worked without adult guidance. Sometimes this was working with a peer partner of their choice or on their own. Joe's opportunities to transform how he participated were thus influenced by his acceptance of adult authority demonstrated in his compliant behaviour. Joe's compliant behaviour then did not disrupt classroom activity or challenge the use of uniform approaches and adult authority.

4.3.4 Interplay guiding classroom roles

I observed the repertoires of practice which emerged as the ways Joe, his teachers and TAs consistently participated. During curriculum activity in mixed-ability whole class learning tasks, Joe waited until he was invited to contribute his answers by his teachers. In mixed-ability independent learning activity, TAs invited Joe to participate and co-construct evidence of his curriculum understandings with them. In comparison, Joe volunteered his answers during low-ability whole class learning tasks. For example, Joe had appeared confident to work alone on Maths tasks, and to do the things Mr Pyman asked of him, such as when he handed out resources to peers. Joe explained his perceptions of the lesson:

It was fine for the pie charts. It was really easy though because I just know how a percentage is made and how it is done. A lot of them were times, and

easy times. I like maths. I enjoy mostly the questions- most of them are easy, some of them are hard. I do get hard ones correct most of the time. Mostly in maths they think I'm really quick, so I don't usually get help. I know what I'm doing. I'm fine with that. I hand out things for Mr Pyman. I enjoy that. Maths is an excellent experience. (Joe, interview, December 2017)

Joe's confidence and accurate answers were bound in his familiarity of the lesson content, and he perceived himself as being regarded as 'able' by Mr Pyman and Miss Kirkhill. As an 'able' pupil Joe did not require adult support. Joe enjoyed the responsibility Mr Pyman gave him to hand out resources.

In contrast it was apparent that within mixed ability groups, TAs worked with Joe more than his teachers did (see earlier). Mrs. Smyth explained:

They are one team supporting the school, so it's very hard for them to get really involved in the departments, and they've all been in the school for quite a time and they seem quite stable – they know the school, they know the kids, they know the most about the school - and that's one thing I realised about being a TA- you know all the staff because you are travelling to all these classes, and they really are the connecting network. (Mrs Smyth, Interview, Science Three)

The school's organisation of TAs emerged as a necessary, consistent, and stable 'thread' for students with SEND across the school. Teachers, with other responsibilities, could not provide this but it was crucial to Joe's participation in mixed, mainstream lessons. It was then apparent that the organisation of curriculum activity into specific areas taught by subject specialist teachers both embedded teacher roles and created a barrier to teachers' holistic understanding of individual pupils that they felt was needed to be able to adjust activity. The more flexible organisation of TAs 'following' pupils was necessary, important and enabled a greater insight and knowledge of Joe's responses to sociocultural activity; this positioned their role as the 'go to' for advice and understanding about his behaviours and academic performance.

Analysis thus revealed that in low-ability classes where teachers and TAs did not intervene, Joe worked in the same way as his peers. This was without adult support, except for English One, where assessment protocol was enforced by Miss Prince. In this situation, Joe's role was co-constructed with her around his specific literacy challenges. Teachers' experiences appeared to make them realise that TAs were better positioned because TAs were deployed across a range of classroom settings. The responsibilities accorded TAs by teachers through this tacit understanding had an influence on Joe's perceptions of different classroom roles and relationships. For example, Joe had worked with Miss Kirkhill in a separate space away from his mainstream peers in both lessons. I wondered how Joe perceived his relationship with both Mrs Calle and Miss Kirkhill from this arrangement. Joe explained:

My TA helps me out a lot in Music...Mrs Calle doesn't help me at all. (Joe, December 2017)

Mrs Calle and Miss Kirkhill's working arrangement revealed its influence on Joe's perception of their influence on his participation. This made Miss Kirkhill important and Mrs Calle superfluous to him.

I asked Joe what he had done in Music One so that I could explore his experience of participating:

We did piano keyboard; it was electric the work. And also, we did my song but, it was called 'The Enemies'. It was a lot of work and the lyrics and the rhythm. We put that together over the last few weeks. I was helped by assistant teachers. I would have liked to have sung my song today. I mostly enjoyed recording the others. (Joe, interview, December 2017)

Joe's description made it apparent that Miss Kirkhill was fundamental in his composition work. In observation it had been apparent that without her full attention, Joe had been unable to complete his work. Joe had relished his 'role' as the class 'camera man' that required him to video his peers' compositions. This opportunity had been created for him by Miss Kirkhill.

When he spoke about his second Music lesson Joe explained:

I played this - the xylophone and sticks and my paper with the notes on. My TA wrote all the notes down before. I didn't. I would have liked to, but it's ok. (Joe, interview, March 2018)

In contrast to Music One, when Miss Kirkhill had helped another pupil, Joe had been unable to complete his assessment. The full attention she gave him in his second lesson had allowed him to complete the task. Joe had accepted Miss Kirkhill annotating his work.

My data made it evident that Joe's experience of classroom activity and relationships was founded in the response to literacy needs within school SEND policy. TA deployment enabled them to have a better understanding of Joe's emotional and relationships 'needs' and responses to different types of curriculum activity. It seemed the dominance of curriculum values and how staffing had been organised within the timetable provided little opportunity for adults to transform their roles and teachers complied with community expectations. The patterns of engagement between teachers and TAs in the different roles and responsibilities each fulfilled in the classroom established the organisation of TA deployment and the assembly-line learning tradition as a cultural practice of the teachers observed, who were focused on pupils' acquisition of curriculum knowledge and skills.

4.3.5 Opportunities for Joe's experiences of activity and relationships to be transformed

Rogoff (2003) suggests context has a significant influence on what individuals perceive about themselves and others, such as being more or less knowledgeable or skilled in community activity. In transformation of participation, shared endeavours allow less experienced community members to develop their mastery of skills and knowledge (Rogoff, 2003). In schools, opportunities for transformation thus lie in the way classroom activity is organised, information is presented by teachers and individuals respond during in-the-moment activity. Given Joe attended mainstream lessons across his school day, I analysed what teachers understood about Joe and how Joe, in comparison to his peers, responded to the activities his teachers organised within the class.

Observations identified that Joe undertook the same activity as his peers (see earlier). Joe's compliance with teachers' tacit expectations of pupil engagement and participation projected him as being the same as his peers and no adjustments were made for Joe. For example, when teachers were presenting information to the class, that included known-answer-questioning, no account was made for Joe's differences in communication and interaction. Mrs Lennie explained:

I've never felt like he hasn't managed with anything – the only time he panics a little bit is if he's got to copy something down and he doesn't think he's got enough time – but even that's a tiny blip. I like to think he's quite confident in that class. (Mrs Lennie, interview, June 2018)

Mrs Lennie's experience of Joe's compliant responses influenced her perception of him coping with the work she set. Joe was also compliant during independent activity set by his teachers. This included when teachers and TAs were not available to him. For example, in written tasks he wrote his answers on worksheets like his peers and he worked similarly in practical tasks, such as using a protractor to check his answers in

Maths, and in independent reading tasks, such as in assessment when pupils were required to independently read the text for their comprehension task (English One). Within independent learning activity, adults' responses to Joe were influenced by the 'needs' of other pupils with SEND and the expectation for TA's to support the more 'needy', the ability context of his class group and how he was perceived as being 'more able' in low-ability groups, and the protocol teachers followed around assessment activity - for example, in English One..

However, in verbal tasks, teachers' responses to Joe were different from their responses to his peers. For example, in teacher led, whole class, questions and answers activity which required pupils to raise their hands to volunteer an answer, Joe was asked when he did not raise his hand. For example, in Science One, Joe struggled to find the information in his work and was directed to this by Mrs Peterson pointing to it before he could give his answer; and in History Two Joe gave no reply throughout Mrs Lennie's prompting until she asked him if he would like her to ask someone else, when he replied 'yes'. Unlike his peers, who chose if they wanted to work with a table partner in both History lessons, Joe had to work with Tyler and Miss Kirkhill for writing tasks. This was because Mrs Lennie directed Tyler to sit next to Joe; Miss Kirkhill had been sitting with Tyler. She then sat with both the boys and asked them questions about the work they had been tasked to do.

Mrs Peterson explained why, with Joe's difficulty in writing legibly, particularly when he felt under pressure, it was important for Joe that she co-constructed activity with him when teachers did not do so:

If it is something they've got to get down as a key bullet point and they're writing like that [illegibly], and they can't understand what they've written, then there's no point in writing that. I think that it's important that they've got at least the key points, or that the information is on a piece of printed paper and stuck into the book. (Mrs Peterson, interview June 2018)

Mrs Peterson scribed for Joe to enable him to evidence his learning and have class notes in the same (handwritten) way as his peers. Mrs Peterson thus saw her role as being different from class teachers, and Joe perceived her as being crucial to his engagement in teacher tasks. Mrs Peterson explained her experience of being a TA as:

.... a facilitator, so helping the student to achieve what they can because not everyone is going to be on the same level. So, I try and encourage them to the best of what they can do, so that it feels as if they've achieved something. The teacher's role is more didactic – they have to get a certain amount of information across. (Mrs Peterson, interview June 2018)

Mrs Peterson's experience of lessons and the challenges Joe faced to be able to participate in the same way as his peers when work was not adjusted for him was then a crucial aspect of her support role. Her experience of the lack of adjustments in tasks set by teachers made it evident to her that teachers were prioritising curriculum content and literacy skills for the whole class. Joe's opportunities to transform how he participated were thus embedded in teachers' actions. Mrs Peterson perceived teachers had little time or opportunity to share planning or catch up with her because of the curriculum pressures they were under. As such, teachers' patterns of engagement focused on a tacit unilateral 'format' of instruction and positioned TAs as activity co-ordinators for Joe. Teachers' patterns in guided participation then corresponded to those expected in an assembly-line learning tradition (Rogoff, 2005); TAs guided Joe's participation as they prompted him to attend to the relevant information he needed to undertake the activities teachers required him to do, and scribed for him during longer pieces of writing.

The distinct differences between teacher and TAs patterns of engagement and responses to Joe, as a pupil with interaction and communication needs, seemed to be a result of his perceived literacy differences; only in Music did it appear to be related to his peer relationships. It was therefore apparent that teachers' perceptions and actions were influenced by how Joe responded in-the-moment. This did not necessitate Joe's teachers

to adjust approaches around Joe's autistic profile when his responses fulfilled what teachers expected of all pupils and of the TA role. Joe's compliance with accepted classroom practices focused on literacy ability, teacher authority in an expert/apprentice relationship, and the ways they were deployed all limited opportunities for transformation within roles and participation.

4.3.6 In-the-moment experiences and community values guiding classroom actions and responses to Joe

Joe's experiences were shaped by how he was understood on the basis of his literacy abilities and the ways different adults responded to these. While formalised results decided the make-up of teaching groups, and handwritten tasks provided teachers with a means of recording evidence of pupils' curriculum learning, data suggested in-the-moment experiences guided teacher and TA responses to Joe. Mrs Peterson (TA) explained how, for her, face-to-face interactions were more important than formal documents:

We have a booklet at the start of term with the children's difficulties in, and we get a sheet - a pupil passport when we start working with a child. You can refer back to that to look at what their difficulties are 'I don't like this... I prefer that...' that's useful because sometimes you really don't know how to approach somebody and you can't get that on a piece of paper- it gives you the basics, but until you work with them you don't really know (Mrs Peterson, interview, June 2018)

The greater value Mrs Peterson placed on lived experience was apparent and reflected Rogoff's (2005) position that contextual information is easier for people to relate to. Thus, the experience of developing a relationship with Joe was central to Mrs Paterson's responses to Joe.

Both Mrs Lennie and Mrs Peterson explained that the school had established formal practices for information sharing, such as through Person Centred Planning documents, which were a one-page modification of information about pupils based on their EHCP. However, it was apparent from the analysis of observations and interviews that teachers and TAs placed greater value on informal opportunities to share their lived experiences and plan for adjustments in activity. Difficulties in arranging informal opportunities were evident in interview data. This was explained by Joe's different teachers as resulting from: the greater amount of time accorded TAs to work with Joe across different lessons; teachers' accountability to the curriculum and assessment; and the lack of time available in the school day to share information with colleagues. Timetabling arrangements of back-to-back lessons and staff deployment thus emerged as a barrier to teachers planning for Joe's specific interaction and communication needs. Pressures from the institutional plane therefore dominated Joe's experiences of his mainstream lessons.

The influence of institutional values, practices and policies evident in my data highlighted an established cultural practice that teachers' pattern of engagement was influenced by their accountability to policy documents. This pattern was an apparent shared and tacit expectation of teachers' roles to direct both the type of activity being done and opportunities for different community members to contribute. In contrast, TAs roles, established in SEND policy, did not have the accountability to the presentation and assessment of the curriculum accorded teachers. For example, It was apparent that in her low-ability English group, already determined by the organisation of groups by senior leaders, Miss Prince relied on her experiences of Joe's responses to the activity she organised and his interactions with his peers. Mrs Lennie (History), Mrs Calle (Music), Miss Kirkhill and Mrs Peterson (TA) also explained how their experiences of Joe's responses to organised activity and peers influenced the adjustments they made during in-the-moment activity when he worked on independent learning tasks. For example, to complete his music composition piece, Joe worked in a separate area of the Music department with Miss Kirkhill, which was unlike his peers, who worked in friendship groups. The distinct role of TAs created from their deployment within the timetable, the length of time teachers had taught Joe, and smaller sized classes emerged as significant

influences on adults' responses. For example, assessment activity was modified for Joe by Miss Prince (English) and through the partnership between Mrs Calle and Miss Kirkhill in Music. Mrs Calle commented:

Joe refused to do his performance last week, so she [Miss Kirkhill] said, let's leave it a week and let him mellow because he wasn't prepared for it (Mrs Calle, interview March 2018)

The authority teachers accorded TAs in their assumed classroom role, meant that Joe participated differently from his peers in independent activity. This difference resulted from perceptions of his literacy or relationship abilities – rather than an assessment of what he might be able to do at the time. For example, in independent written activity set by Mrs Smyth in Science Two, where his peers chose to work either on their own or with the person they were sitting next to, Mrs Peterson organised a discussion of the work between Joe, Jessie and herself. Mrs Peterson then scribed Joe's answers for him, whereas his peers wrote for themselves.

I had explored Joe's participation in his Science lessons with him in interview. It had been apparent in observation that in independent learning tasks set by Mrs Smyth for the class group, unlike his peers who chose if and who they worked with, Joe's choice was directed by Mrs Peterson. I was interested in Joe's perspective of his relationships with Mrs Smyth, Mrs Peterson and Jessie. In conversation about Science One Joe explained:

The TA helps me all the time, and Miss [teacher] never does I think, erm yes, she never does... The TA did help a lot [Mrs Peterson]. She did help me with a lot of the questions and answers mostly. She used her own book she had brought in for me. (Joe, interview, December 2017)

This made it clear that Joe considered Mrs Peterson's actions helped him complete worksheets. In contrast, Mrs Smyth had not previously worked with Joe on the answers. This made Joe think that Mrs Smyth was irrelevant to him.

Joe had not been given a choice of working independently in Science Two as Mrs Peterson engaged Jessie in the activity. I explored what working with Jessie had meant to Joe:

Jessie knows most of it and I don't, so she helps me out; Tyler sits behind me – he's my friend –and I talk to him all the time in lesson – but knowing he is there helps me. (Joe, March 2018)

Joe perceived that Jessie knew more than he did and thus she could help him with class work. Despite Tyler and Joe having not spoken to each other, his presence was important to how 'safe' Joe felt. Joe's friendships seemed to be a significant part of his emotional well-being and curriculum access.

I asked Joe what he felt about the curriculum tasks Mrs Smyth had set in each lesson. For Science One Joe (December 2017) said:

It was fine but the problem is I don't get difficult questions like for example that metal one. I do not get that. And in other ways, the forms it needs to get produced down to it's just a bit difficult for me. It's mostly that sometimes I don't like Science like chemistry because it gets really complicated like with elements and so.

The demand for him to link different areas of the topic was a challenge for Joe. He acknowledged Mrs Peterson's actions made it easier for him to do this. In contrast, Joe's experience of Science Two was more enthusiastic:

We drew pictures [laughs] like helium. I got the task done. That's important for students, to finish the task, and to do what the teacher tells you to do because it's the way to learn and tells you how the planets are. The purpose

of education tells you how to learn about things. You learn how to use English, speak a different language, or Maths to make you go onto a job you've dreamed of in your life. It gives you the skills and knowledge for qualifications. (Joe, interview, March 2018)

Joe's enjoyment of the activity and pride at completing it was evident. Whether Joe experienced activity as 'fun' or a 'slog' on his pathway to success had been influenced by his relationship with Mrs Peterson and the actions she took to mediate tasks. The use of the framework of planes highlighted that the opportunity accorded to TAs and how they responded to Joe influenced his participation in the uniform tasks set by his teachers for all pupils. The data from my study evidenced that classroom repertoires of practice and roles were dominated by institutional curriculum and literacy skill values which ignored Joe's interaction and communication needs as outlined in his EHCP and SEND register.

4.3.7 The influence of activity in the planes on Joe's experience of membership in lessons within his community of learners

Joe's teachers and TAs had been clear about the importance of lived experience and the ways this shaped what they understood about Joe. If it is accepted that the sociocultural foundation of learning is in experiences and the way that interactions are shaped in the relationships shared between people (Rogoff, 2003), the understanding derived from interactions determines people's responses to others. The responses experienced are important to how individuals perceive themselves as members of their community, and this has implications for young people's affective state and curriculum learning during adolescence (Hay and Winn, 2012).

The tools a community uses shapes what members understand about individual participation and the purpose of activity (Rogoff, 2003). Observation in Joe's lessons had highlighted that the curriculum dominated activity, and that the way in which Joe participated influenced adults' responses to him. For example, in both History lessons Joe had worked with Miss Kirkhill. She had moved to sit with Joe when Mrs Lennie had

directed Tyler to sit next to Joe for independent learning activity. Joe talked to me about Miss Kirkhill in interview. He explained his relationship with Miss Kirkhill:

I know what her real name is. She tries to convince me to work, and it works. We have a good relationship. I like to please her. She helps me feel more confident. I want to feel confident, it's important to me. She tells me what to do and what I could think of. She doesn't sit by me all the time. She goes and sits by some when they are stuck or naughty. I don't like being looked over all the time. She knows me best. I spend most time with her. (Joe, interview, March 2018)

Joe explicitly stated that Miss Kirkhill was important to the confidence he felt. Feeling confident was important to him. In particular, the guidance she gave him when he struggled to think or link his own ideas or information necessary in a way that would allow him to be successful in tasks was essential to him. Miss Kirkhill's sensitivity to Joe's wish to work alone was also apparent; when Joe could pull his thoughts together by himself, he saw no reason for her support or attention and Miss Kirkhill's ability to recognise this was important to him. The prolonged period Joe and Miss Kirkhill had spent working together had accorded them the opportunity to develop a relationship he valued founded in her responses to him.

I asked Joe about his experience of the different activities that had been organised in History One:

The History lesson went well including with the question and answers. For most of it we watched the Christmas Truce, it was amazing. I watched it in year 6. Because it just tells you how World War One was presented through the course of History and then it tells you how Germany and also the English and also France were an alliance and friends and then went back to being enemies again. The easiest way for me to get information is probably through talk or through paper that tells me facts and information. Watching a video is easier for me than paper. (Joe, interview, December 2017)

Joe had enjoyed the video clip that he remembered watching in his primary school. For Joe visual information and the opportunity to discuss ideas and 'facts' was preferable to reading information.

I asked Joe about his apparent difficulty responding to Mrs Lennie's question about teenagers in his second History lesson. He told me:

I had a headache so I couldn't remember it and I haven't been into that lesson for quite a while so remembering was difficult. (Joe, interview, March 2018)

'Being asked cold' had made it difficult for Joe to organise his thoughts and remember past information. This was compounded by his having a headache.

While context and cultural tools offer a framework for roles and the purpose of activity, relationships provide the foundation of understanding oneself and others' similarities and differences (Rogoff, 2003). In-the-moment responses provide the opportunity for different individuals to develop and express their knowledge about others, such as their affective state. Autistic individuals interpret social interactions and communication in a different way from peers (Jackson, 2003), and how they respond in social situations can also differ (Williams, 2010; Dicker, 2018). A generic response to an autistic individual therefore appears inadequate given the variability of autistic individuals.

Analysis of interview data revealed that standardised assessment results provided teachers with an indication of the range of literacy abilities they had in their class. However, this assessment was limited to handwritten responses and did not allow pupils to communicate their knowledge in other ways, such as orally. Handwriting formation and speed can be a specific problem for autistic individuals (Attwood, 1998), but Joe was able to discuss his ideas – as exemplified in Science Two. The reliability of Joe's standardised scores in indicating his knowledge when compared to his peers, who did not exhibit

handwriting and information processing differences, was not questioned within the ability grouping arrangements in place. However, interview data showed that within his lessons, both teachers' and TAs' responses to Joe were guided by their experiences of his participation in lessons and what they understood about their individual role in the classroom.

Rogoff (2003) suggests that lived experience shapes what a person understands - for example about ability. My data showed that established roles and practices were apparent during in-the-moment activity. These were not challenged by Joe, his teachers, or TAs, while Joe's responses to tasks complied with his teacher and TAs' expectations of pupil behaviour. Thus, Joe's autistic needs, and the strategies detailed on the school's electronic SEND register, were not implemented in lessons and, while TAs supported Joe's production of handwritten responses, alternative ways for him to present his knowledge were not offered.

Rogoff's (2003) sociocultural explanation of the universal process of transformation of participation suggests that what a person understands about themselves and how they identify as a member of their community, emerge as they negotiate the priorities and values of their context (institutional plane), activity and relationships (interpersonal plane) with experiences (intrapersonal plane). Rogoff's explanation suggests that regardless of his autism, Joe's responses to classroom relationships and the activity itself, shaped the opportunities he had for transformation. Therefore, to understand what was shaping Joe's experience and the opportunities that were available for him to transform his participation within the context of his community of learners, I analysed the dynamics between the planes.

4.4 Dynamics and practice operating in and between the intrapersonal, interpersonal, and institutional planes, that shape Joe's lived experiences

In this section I reflect on RQ 3. I have argued in the literature review (chapter two), that the routines, activities and relations of a community, established in its practices and its use of tools, provide evidence of the priorities and values that adult members of the community consider necessary for children to achieve particular development goals - for example, acquiring theoretical knowledge and developing practical skills.

Forming, maintaining, and understanding relationships is problematic for autistic individuals (Attwood, 1998). However, the responses of others influence how an autistic individual perceives him/herself (Jackson, 2003) so relationships matter. Reflecting on the way an autistic individual interacts and communicates in response to others can give information about effective ways to engage that person in activity (Conn, 2014b). Given Joe's EHCP identified him as autistic with interactions and communication needs which required information to be presented to him in specified ways, such as 'chunking' and visual supports, I analysed my findings to establish the tools and practices that were guiding adults' actions in each of Joe's lessons. To do this, I first examined the influence of the institutional plane on Joe's teachers' classroom actions and discourse because this could influence the classroom roles and relationships, and Joe's participation in these. Secondly, I explored the influence of individual experience on repertoires of practice as Rogoff's (2003) concept of transformation suggests that within apprenticeship, repertoires of practice are influenced by personal beliefs being negotiated with an individual's experience of the community practices. Finally, given that repertoires of practice both guide, and are guided by, experience (Rogoff, 2005), the influence of apprenticeship on participatory appropriation and repertoires of practice was scrutinised. Further, I considered the tensions which arose from apprenticeship as these indicated the dynamics between the planes. All of these elements potentially shaped opportunities for transformation in practices, membership, participation and Joe's experiences.

4.4.1 *The influence of institutional tools and practices on classroom repertoires of practice*

Rogoff *et al.* (2005) suggest that formal schooling, as a goal of development, follows a community script which prioritises certain aspects of knowledge and guides how this is arranged in school-based activity and relationships. This is unlike what happens in the mature activity of adults and, rather, follows what Rogoff terms an assembly-line tradition of community organisation. ‘Pupil shadowing’ evidenced that Joe, his teachers’ and TAs’ time was organised into lesson, break and lunch time activity. As a cultural tool (see chapter two) timetabling determined the time, place, ‘event’ (subject lesson) and who was involved, and, as such, the tacit expectations of the school about the relative time spent in different curriculum activity by adults and pupils. Timetabling could be regarded as a cultural practice of the school; it was organised around the curriculum and the human resources the school had available. As a document used by staff and pupils, it was a community resource that guided activity and roles; interviews revealed that the timetable reflected how groups of pupils had been organised into teaching groups set by ability in literacy or as mixed-ability. Joe followed the same timetable as his peers: this established him as ‘the same as’ them; he was not allocated any session in the SEND department for interventions. However, unlike his peers, a TA accompanied Joe to lessons. The school’s SEND policy (2017, p4) specified that the individual needs of pupils guided the deployment of TAs. This section now considers the influence of school policy documents and its practice of setting by literacy ability on Joe’s experience of membership.

4.4.2 *School policy*

Rogoff (2003) argues that children are segregated from adult life and, at school, are placed in a position in which adult obligations to teach curriculum content is of little relevance to young people’s participation in wider community activity. I had observed Joe’s teachers during lessons. For example, Mrs Smyth was instructing, questioning, and

evaluating pupils' knowledge about the pH scale in Science One. Mrs Smyth explained that the lesson content was part of the scheme of work which the school curriculum policy expected departments to have. The school curriculum policy stated:

All departments have schemes of learning in place and a wide range of teaching methods and learning approaches are used. Whichever style is used we aim to assure that the teaching is structured, planned and based on high expectations and the pursuit of high standards for students of all abilities. The School and its departments have a wide range of policy statements in place on all aspects of the curriculum. (School website, 2018)

Given that Rogoff (1995; 2003) considers that the institutional plane provides a framework which guides a community's activity, what had been written in school policy provided explicit expectations of teachers' responsibilities to the curriculum. The influence of curriculum policy on teachers' repertoires of practice in Joe's lessons was clear and they presented the curriculum content required of them. Mrs Smyth explained the impact of accepting school practices on her classroom relationships and the activity she organised in lessons:

I really try hard to build a relationship but when you have 30 kids it can become really difficult because you are trying all the time to build relationships with all of them, but at the back of your mind, particularly with GCSE Science, you are just trying to get through the content. (Mrs Smyth, interview, June 2018)

This revealed that Mrs Smyth perceived that the curriculum she was expected to teach, and which had been written up as schemes of work within her department, made teachers accountable for giving specific subject facts to pupils. Her accountability for curriculum content thus dominated her actions and her classroom relationships.

4.4.3 Setting by literacy ability

Rogoff (2003; 2005) has highlighted three different cultural traditions which can serve as an organisational framework for children's learning experiences as they develop the skills and knowledge for mature activity (see chapter two). Her concept of the transformation of participation in cultural activities (see Rogoff 2003, p.37) states that the values deriving from cultural tradition shape the activity and relationships adults and young people participate in. Rogoff *et al.* (2005) gives the example of formal schooling focused on the transmission of specific knowledge and skills from teacher to pupil. I considered what values were influencing practice in Joe's school and the effect these had on classroom activity and relationships.

Teacher accountability to curriculum content, evident in the data produced by this study, had an apparent impact on Joe's participation. Policy and practice created in the institutional plane influenced the way teachers taught, what they felt about being a teacher and how empowered they perceived themselves to be to understand and respond to pupils' individual differences. Mrs Lennie explained:

We get the PCP, and we look at that – I particularly like looking at the reading age, but we are just so busy. (Mrs Lennie, interview, June 2018)

Mrs Lennie said that standardised assessment results were a particularly valuable source of information for her understanding of different abilities in her mixed-ability history class.

School policy showed that pupils' results in standardised literacy and numeracy assessments at the end of Key Stage Two, guided the ability groups they were placed in for different subjects. The specific action of setting by ability in Joe's school was laid out on the school's website:

In Year 7, pupils are placed into sets for Mathematics, English, Modern Foreign Languages and PE. In Years 8 and 9, these arrangements extend into other subject areas. Special provision is made for students with learning difficulties or special needs.

It was apparent that academic ability was highly valued in the school and influenced the context of teaching groups. For example, the school assessment policy (2018, 4.11) determined 'academic ability' from pupils' results in their work and how they participated in curriculum activity. Given Joe had special needs, I reviewed the school's SEND policy document for evidence of the special provision the prospectus had declared was available. On reviewing it, it was apparent that pupils' literacy and numeracy scores underpinned the school's response. For example, the policy stated that pupils were helped through '*TA support in exams/lessons as scribes/readers*' (School SEND policy, 2017). It was clear that what the school understood about Joe on his entry to Year Seven was based on the standardised academic assessment data produced for all pupils at the end of primary schooling. However, for autistic individuals, the presentation of information influences their response to it (Attwood, 1998; Conn 2014b). Joe's reading assessment scores were ranked alongside those of his peers. The reliance on individual literacy attainment thus guided how Joe was responded to; for example, it determined the placement of pupils in 'ability sets' and how teachers and TAs perceived him as a member of his class.

4.4.4 The influence of individual experience on repertoires of practice

What an individual experiences shapes what they learn about themselves and others as they participate in novel and familiar activity and relationships. (Rogoff, 2003, 2005). An individual's responses are then guided from the opportunities they perceive are available to them to transform their membership and participation as they negotiate context, activity, and their experience. My study investigated how Joe was responded to and his

own repertoires of practice. Given that Rogoff (2003) has suggested that a community's tools, activity and interactions operate to establish a shared understanding of the purpose of activity, I scrutinised the value accorded literacy and teachers' accountability to the curriculum that had been evident in policy documentation and teacher interview.

4.4.5 The value of literacy

There was a clear institutional focus on standard assessment scores within school policies. Joe's academic results positioned him as a 'less able' member of the community, but this did not acknowledge the autistic differences detailed in his EHCP, and how these influenced his academic learning. Consequently, the context and organisation of Joe's different teaching groups focused on his literacy abilities in comparison to his peers. Jordan (2008) suggests that this sort of comparison creates a community expectation around what is valued as 'success' rather than how success is achieved for pupils who fall outside of expected 'norms', such as through a diagnosis of autism (see chapter two). Had he been able to learn differently he might have achieved differently. What Joe had to strive towards was merely 'assumed' in other pupils.

The value accorded literacy in institutional practice had a consequence for the way Joe's teachers regarded him in their lessons in comparison to his peers. Themes emerging from the interview data (for example, see appendix 9) suggested two distinct teacher perspectives of Joe as a member of his community of learners. When in low-ability groups, Joe was seen as different from his peers: for example, in English, Miss Prince saw him as being more 'emotionally and academically able' than many of his peers. When in mixed-ability groupings, Joe was perceived as being less emotionally and 'academically' able than his peers (he was seen thus by Mrs Calle (Music), Mrs Smyth (Science) and Mrs Lennie (History)). The school's cultural practice of setting on the basis of standardised assessment scores detailed in their curriculum and assessment policies, and the priority given to certain aspects of the curriculum from an assembly-line tradition,

influenced the contexts Joe was able to access and how he was perceived by his teachers. Joe's diagnosis was thus irrelevant to how he was perceived in the different contexts and relationships of his lessons.

4.4.6 Teacher accountability to the curriculum and pupil learning

Analysis of interview data identified that the value accorded to 'ability', and teacher accountability for the tracking of pupils' progress, were having implications for the choices teachers made about the ways they communicated, managed and evidenced pupils' knowledge in lessons. There was consistent agreement in teachers' interviews about the pressures of 'tracking points' in pupils' progress in the curriculum across the school year and what this meant for them and Joe. For example, in English, Miss Prince scribed the answers he told her; in Music, Miss Kirkhill gave him additional time to practise and prompted him as he was recording his composition piece. It was evident that, as a cultural tool, academic assessment results guided teachers' responses to Joe's handwriting difficulties and how they presented information. The impact of the pressures from reporting were articulated by Mrs Lennie:

We've got to the stage where timewise you have to focus less and less about the teaching and the kids, and more about the content, the data and the targets which is a huge shame – that really makes me quite disheartened really. I love being in the classroom, I love working with the kids, but we are moving away from that to targets and data all the time. (Mrs Lennie, interview, June 2018)

The focus on results and teacher accountability for pupil progress in relation to the curriculum in Mrs Lennie's description, suggested that teachers prioritised the production of data. Observations and TA interview findings suggested this was construed as handwritten pupil work. TAs claimed this based on their experiences of the work set for pupils by teachers and their own actions to support Joe to produce evidence of his learning. As articulated by Mrs Lennie above, teachers were

conscious that they were obliged to focus on pupils' knowledge of content and written evidence of this, and Joe required adults to intervene to achieve this. Institutional practices had an emotional impact and a consequence for the relationships teachers felt able to develop with individual pupils.

4.4.7 The influence of apprenticeship on participatory appropriation and repertoires of practice

Rogoff (2003; 2005) has suggested that individuals often adjust their personal beliefs and values to conform with the dominant expectations of their context. This compliance can create conflict and, if tensions are not resolved, dis-engagement or rebellion can emerge. How an individual resolves dissonance in values shapes how they participate in community activity. It had been evident in interviews that Joe's teachers' acceptance of institutional practices, such as their accountability to the curriculum and pupil progress, was problematic for them. This was because the focus on content and performance measures conflicted with the value they placed on pupil-teacher relationships. They considered relationships essential to better understand individuals' engagement and performance. In particular, my data highlighted teacher acceptance of standardisation - for example, curriculum information was presented uniformly for all pupils using known-answer-question approaches; teachers reported the value of pupil data on reading ages. Teachers' classroom actions thus reflected their interpretation of school curriculum and assessment policy. This was despite what they said about their experiences of SEND and the values they placed on relationships as fundamental to learning.

In interview, teachers cited timetable arrangements and curriculum content as specific barriers to their autonomy to adjust their classroom practices. Interview data suggested that the back-to-back timetabling of lessons and deployment of TAs to 'follow' pupil timetables, whilst accepted as a cultural practice, created a fragmented understanding of Joe. I explored the influence classroom activity and adult roles had on the opportunities

available for Joe to transform how he participated and how he identified himself as a member of his community. Specifically, I addressed the opportunities teachers perceived were available to them within the timetable and curriculum. This is followed by consideration of the influence of institutional arrangements on adults' classroom actions.

4.4.8 The influence of the timetable and curriculum on classroom activity

Available curriculum time and teachers' accountability for pupils' academic learning were highlighted as problematic by Joe's teachers. Analysis of interview data suggested that the weekly curriculum time allocated to teachers was problematic in terms of their accountability. For example, Mrs Lennie explained:

I'd love to spend more time looking at specific students and have time to think how can I adapt things for him – but if you see students once a week as we do for history it is very difficult to do that. (Mrs Lennie, interview, June 2018)

Teachers perceived the amount of content they had to deliver was too much for the time being made available for them to teach it to pupils. This was particularly so in larger, mixed-ability groups for Mrs Lennie (History) and Mrs Smyth (Science). For example, Mrs Lennie explained:

The changes in the curriculum and assessment had meant that we have had to adapt what we do - as a department we have decided to start teaching some of the exam stuff for key stage four at key stage three because there is not enough time at key stage four (Mrs Lennie, interview, June 2018)

The influence of the institutional plane on teachers' classroom practices was thus apparent; Mrs Smyth and Mrs Lennie felt the time/content pressure influenced their approaches and presentation of information - for example, as teacher directed, or child led. In interview, Mrs Calle was particularly vocal about the impact of changes in Music syllabi. This change required her to generate more written evidence that threatened her personal time:

I want to enjoy my children at home, and it's not just about my career.
I want to have a balance. (Mrs Calle, interview, June 2018)

The organisation of the timetable, that, in the teachers' opinion, had not responded to the changes in syllabi expectations, was mentioned in their reports. They felt obliged to get through content and this constrained the range of learning activities they planned. Thus, the pressures teachers felt to meet curriculum obligations guided the opportunities Joe had to transform his participation and how he evidenced his knowledge.

4.4.9 The influence of institutional arrangements on adults' classroom actions

Teachers' accounts of their personal experiences of autistic individuals, TA reports of what they knew about Joe from working with him, and the school digital system of sharing information about individual pupils with SEND, suggested that Joe's teachers and TAs had the potential to alter activity for him. To enable all pupils to access learning, the CoP (Great Britain. DfE and DoH, 2015, 6.52) is clear that opportunities for teachers and TAs to share their knowledge about pupils and how they participate in activity are important for planning and adjusting activity. However, observations of uniform approaches indicated Joe's autistic differences were not considered in his lessons. Whilst interview data indicated the informal and formal sharing of information, pupil shadowing data made it apparent that the timetable did not offer staff allocated opportunities to share

information about Joe or lesson content. Mrs Peterson explained her lack of confidence in adjusting how information was presented and responded to during in-the-moment lesson activity. She said:

It is very limited in the time we have to communicate with each other – I go into the lesson as the kids go in, but sometimes when I get there the teacher has started and is already explaining what is going to be happening in the lesson, so if Joe has been late he would have missed that anyway, so I don't know what is going on until I actually get there and the children are doing it. At the end they've got another class waiting and I have to get to another a lesson so there's no time at the end to exchange information... so there's not a lot of time to go into detail, certainly not planning. I think we do the best we can in the time we've got (Mrs Peterson, interview June 2018)

Whilst the organisation of back-to-back timetabling and TA movement around the school appeared to influence teachers' perceptions of TAs' knowledge and ability to work with Joe, the timetabling arrangement emerged as a barrier to opportunities TAs valued for sharing information. This lack of time had an impact on the support Mrs Peterson perceived she could give Joe in lessons and it heightened her anxiety. My study data therefore highlighted that the formal organisation of curriculum and staff time meant teacher and TA roles were distinct. In lessons Joe was responded to in-the-moment, as teachers and TAs did not have the time and opportunity to co-ordinate information together and incorporate this knowledge into lesson activity.

4.4.10 The influence of policy on classroom roles

School policy meant that a TA was present in each of Joe's lessons, regardless of whether the class was set by ability or a mixed-ability group. I reviewed school SEND documentation for information about the distinct roles of TAs and teachers in their involvement with pupils with SEND. TAs were deployed to support handwriting and

reading difficulties, to check that individual pupils knew what they had to do, to escort the pupil between lessons and to ensure they were organised for lessons. In contrast, teachers were tasked with the responsibility for making reasonable adjustments in classroom activity using information on the SEND register about each pupil. This information included effective teaching approaches, advice gained from external agencies such as Specialist Advisory teachers, guidance about differentiated work (for example, 'breaking tasks down' into smaller units of information), the use of a computer to record information and organising seating plans so that SEND pupils sat in a place where they felt less anxious. The formality of roles and responses to pupils with SEND, laid down in school policy, revealed distinct and fixed expectations about adults' participation: TAs tackled the practicalities of difference; teachers were responsible for decisions on how they transmitted syllabi content and organised the learning environment to account for difference. The value accorded curriculum and pupils' achievement in the school emerged as a barrier to transformation in teacher and TAs classroom repertoires of practice and, subsequently, Joe's experiences of participation and membership.

4.4.11 Tension arising from the segregation of school endeavours from mature activity

The institutional priority accorded curriculum syllabi and focus on specific literacy skills frustrated TAs and teachers. For example, syllabi content was described as being decontextualized information that did not reflect adults' personal experiences of subjects and skills in daily life. Rogoff (2005, p.18) describes this difference in school-based knowledge and wider community knowledge as distinct to an assembly-line learning tradition because it *'involves transmission in specialised exercises outside the context of productive, purposive activity'*. In interview Mrs Peterson explained what education meant for her and how having a niche did not need to be constrained by fitting individual's into standardised boxes:

Education for me is about helping children to reach their potential to their own abilities - we are all different and that's fine we all fit into boxes so it's about helping them find what's best for them - what's somewhere. I think there is a bit of a tendency to put people into boxes - and that doesn't work especially for some of our children when they don't fit the best outcome we can have; and how can we help them with that? It's that they achieve something. (Mrs Peterson, interview June 2018)

Her explanation revealed her experience that standardised approaches, assessment and the curriculum were insufficient to capture and develop the strengths and challenges of pupils like Joe, who did not fit into the standardised boxes created by the current education system. It was important to Mrs Peterson that adjustments should better enable pupils with SEND to experience success like the other pupils. The focus on the transmission of syllabi content from teacher to pupil in the assembly-line tradition created barriers and conflict with her own understanding of 'mature activity'. Mrs Peterson explained:

When we leave school, we are in the real world and it's about being able to interact socially as well as educationally so it's all integral to that process. In lessons I hope I promote those skills. It's about those relationships, it's about mirroring various behaviours and saying thank you, please, well done, little things that are important things. (Mrs Peterson, interview, June 2018)

Whilst Mrs Peterson ensured Joe participated in and completed the activities set by Mrs Smyth during both Science lessons, she had developed her own way to help Joe answer the questions set by Mrs Smyth. Mrs Peterson's personal values, life experience of learning as a co-constructed activity and the value Mrs Smyth placed on TAs as a classroom resource influenced the way Mrs Peterson worked with Joe. She wanted Joe to feel supported, valued and encouraged to interact with her; she also wanted this for Jessie, whom she helped in Science Two. One way she did this was by using her own notes and by inviting Jessie into the activity. Joe's experience thus appeared to be shaped in the teacher-TA dynamics in the classroom.

The influence of the accepted community practices on patterns of engagement was apparent in how these shaped Joe's participatory appropriation. Observation of in-the-moment classroom activity and relationships revealed that Joe worked in a similar manner to his peers during whole class teacher led activity - for example, when teachers posed questions and asked pupils to respond in front of the class. However, there was a stark difference in how he participated in independent learning tasks. This was particularly so in mixed-ability class sets and during formal assessment in his low-ability English lesson. Whilst teachers set these undifferentiated tasks for all pupils in the group to do in the same way, such as completing worksheets, Joe worked with Mrs Peterson in Science One and Two, and Miss Kirkhill in History One and Two, and Music One and Two. This made it apparent that the school's organisation and deployment of TAs and the relationship they had developed were significant to Joe's participation that was impeded by his challenges in handwriting, information integration and, particularly in Music, subject specific literacy and skills. However, in English Two and Maths, which were low-ability lessons without assessment demands and where more pupils had SEND, Joe received less support and attention from staff. In these lessons, when Joe was offered help, he declined it as he felt confident in his abilities to work independently.

Being 'successful' in tasks was important to Joe, who viewed his education as an essential stepping stone to his adult life opportunities. It was important to Joe that he complied with adults' expectations of 'learning behaviour' and he accepted the help he was given, particularly for written tasks. Handwriting was established as a significant challenge for Joe by himself and by his teachers and TAs. With no alternative ways of producing written evidence made available as part of 'usual practice', Joe relied on adults to scribe for him.

The deployment of TAs organised to 'follow' Joe's timetable positioned them as 'experts in SEND'; in contrast, teachers were positioned as 'curriculum subject experts'. The back-to-back timetabling of lessons that resulted in TAs entering and leaving Joe's lessons at the same time as him, prevented teachers and TAs from sharing their

knowledge. During lessons this resulted in TAs having to respond to the information teachers gave and the tasks they set 'in-the-moment' and at the same time as pupils. The dynamics of the different planes which have been found to reflect an interactional world view of schooling, and how this tradition was being negotiated by Joe, his teachers and TA's to influence classroom activity as tasks, actions and relationships, are discussed in the following chapter. This is because Joe's experience, as an autistic individual within a community of learners was dominated by a focus on literacy ability and curriculum knowledge. The greater priority accorded literacy skills to indicate academic ability did not allow adjustments to be made for Joe's interaction and communication differences, such as presenting information or evidencing understandings in alternative ways.

4.5 Conclusion

This chapter has examined Joe's classroom experience. It reflects in-the-moment classroom actions, discourse, and dynamics between the planes during five mainstream lessons across two separate visits. Rogoff's (2003; 2005) concept of transformation of participation provided the analytical framework of my study and guided my research questions as I sought to interrogate how Joe's perceptions of himself as a member of his community of learners were being shaped by the interplay between the institutional, social and individual values, priorities and experiences.

This chapter has highlighted the usefulness of using Rogoff's planes of analysis and, spotlighting and fading each of the planes in turn to investigate the influences that activity within each had on Joe's experience and how he identified himself as a member of his community of learners. Scrutiny of the dynamics between the planes revealed the dominance of community values and practices within Joe's lessons and that these influenced the opportunities available for Joe to transform his membership and participation. Rogoff *et al.* (2005) have highlighted the dominance of the institutional plane on how activity is organised. This activity, and the way in which experiences are shaped, guides what individuals understand about different members roles and how they

participate. Analysis of activity within the intrapersonal plane demonstrated the influence of the institutional plane in participants' repertoires of practice. For example, teachers presented information from curriculum syllabi in uniform ways, and discourse revealed the pressure they felt to generate evidence to assess pupils' learning. What was understood about Joe by his teachers remained dominated by the context and relationship dynamics of teaching groups and staffing organised by senior leaders.

The curriculum values of the institutional plane were found to have the greatest influence on teachers' classroom practices and overrode the personal importance they placed on having time to develop relationships with individuals during restricted and demanding curriculum time. The way Joe's differences, identified by comparison to his peers, were framed within the institutional plane then had a significant influence on the way he was responded to within classroom activity and relationships in his lessons. The dominance of the institutional plane on teachers' classroom actions as they negotiated the demands of curriculum and assessment policies thus positioned Joe as less able than his peers and more needy of one-to-one adult support.

TAs were deployed as part of the core SEND provision within the school's SEND Policy. The consistent deployment of Mrs Peterson and Miss Kirkhill had accorded them greater time and variety in classroom experiences to develop their responses to Joe. Observation of their actions and examination of their discourse showed the pertinence of their role in supporting Joe to access and evidence his understanding of the learning activities in the classroom. This was required to engage Joe in curriculum tasks when these were not adjusted by teachers. The relationship that had developed between Joe and the TAs was described by Joe with a tenderness from his experiences of their responses to him. Joe felt they understood his anxieties and his difficulties in relating to complex information and handwriting. TAs thus emerged as being fundamental to Joe's demonstrating his success as a learner.

Rogoff's (2005) explanation of the different roles individuals take in activity as they participate in shared endeavours has highlighted the influence of activity organised by adults on Joe's experiences as a learner. The provision made for Joe in the institutional plane guided when, how and by whom he was supported in curriculum activity. The influence of the institutional plane on Joe's repertoires of practice was apparent as he conformed and participated in the same way as his peers during whole class activity and followed the directions of teachers and TAs. If it is accepted there is a greater prevalence of isolation and academic underachievement in mainstream settings for autistic pupils (Hay and Winn, 2012), the dominance of institutional values that guided the way teachers and TAs responded to Joe's autistic differences in interaction and communication that emerged from my study had a significant influence on Joe's mainstream classroom experiences. The influence of the dynamics between the planes shaping Joe's participatory appropriation was evident. Joe's experience of classroom activity and relationships, and of adults' responses to him, shaped what he understood about the purpose of activity and how being a compliant member of his classes was fundamental to his aspirations. Success for Joe was identified as meeting his teachers' expectations by completing tasks and he believed that, ultimately, this was needed for him to become a successful adult. Joe's descriptions suggested that to be successful in his end of Year 11 public examinations, he was reliant on his teachers' academic knowledge.

Rogoff's (2003) concept of transformation has suggested that experience of relationships and activity influence what an individual understands about their own and others' strengths and challenges. This was evident in my data. The influence of the institutional plane, that played out in the activity and roles adults took in the interpersonal plane, was evident in how Joe perceived himself as a member of his community and accepted adult authority. Joe relied on his one-to-one support to be able to consider himself a successful learner; he relied on TAs to scribe for him when no alternative methods of communicating his knowledge was offered. Joe benefitted from having someone to explain things to him when he was unfamiliar with a topic, he did not have lived experience of it and it was presented in a uniform way. The dominance of the values accorded to specific subject

knowledge and literacy abilities in reading and handwriting in lessons established in the institutional plane, and the impact these had on interpersonal plane activity, evidenced that Joe's diagnosis of autism and EHCP status was ignored within his day-to-day experiences.

In the following chapter I develop my analysis of the planes and explore the paradigmatic tensions that had become apparent. How learning is conceptualised within a setting - for example, in formal or informal arrangements - is important to the opportunities available for the transformation of participation and membership. This includes changes in historically influenced policies, routines, and practices. Rogoff (2016) suggests historical worldviews are underpinned by different paradigms which shape how activity is organised and relationships are arranged. In my discussion, I explore the influence of the interactional worldview (Rogoff, 2016, p.182) which was prevalent in the policies, routines and practices within Joe's setting. This dominated the values placed on transactional learning by Joe's teachers and TAs. I discuss how analysis using the framework of the planes revealed that learning conceptualised as interactional, and organised around the transmission of information from expert to learner, did not challenge classroom relationships. The influence of the worldview on experience was apparent. The evidence of my study was that the dominant, interactional worldview meant that Joe's diagnosis of autism was irrelevant within his setting. Joe remained on the periphery of classroom relationships and became needy of one-to-one adult support to mediate the literacy and social demands of lessons. In my discussion, I suggest inclusion is experienced within the worldview of how learning is conceptualised, organised, and assessed. I suggest that a paradigmatic shift to transactional learning opportunities using a participation approach (Rogoff, 2016) warrants further investigation in future research to alter community responses to SEND.

Chapter Five: Discussion

5.1 Introduction

My study has focused on Joe, a 13-year-old, year nine student with autism. It investigated the ways his experiences of community membership were being shaped and what this meant for him as he participated in classroom activities and relationships. Joe's school was conceptualised as a specific community of learners with established policies, practices and relationships between adults and young people (see literature review). Vygotsky (1978) highlighted the ways in which cultural tools, routines, and practices carry social meaning (see chapter two). This theoretical insight has informed my application of Rogoff's (2003) planes of analysis approach to investigating Joe's participation in his community of learners. Rogoff (2003, p58) has suggested that whilst each plane provides a different aspect of activity, in isolation none is able to present an in-depth, overall picture of participation. The use of pupil shadowing to investigate Joe's experience of his five lessons, and an analytic approach which examined the in-the-moment activity on each of Rogoff's three planes, produced data which suggested that the cultural tools, routines and practices operating in Joe's community of learners reflected an interactional worldview of learning. This viewpoint has been described by Rogoff (2016) as separating the individual from their social experiences and focusing on inherent, psychological mechanisms to explain engagement and participation behaviours.

The dynamics between the planes as they applied to my study have presented the influence of context, activity and experience on how Joe identified himself as a member of his community and the opportunities that were available for transformation. The dynamics identified the dominant influence of apprenticeship on the activity and relationships in the interpersonal plane. It was apparent that Joe, his teachers, and TAs

accepted their different roles and shared an understanding that the purpose of classroom activity was to equip Joe with the necessary curriculum knowledge to enable him to evidence it in the same way as his mainstream peers.

In this chapter I first interpret the dynamics between context, activity and experiences applied to my study and I examine the significant influence of the institutional plane within Joe's community of learners. The evidence suggested that consideration of Joe's specifically 'autistic' differences and needs within his EHCP was not given with regard to his membership of his learning community. This was due to the narrow conceptualisation of learning as an interactional process of transmission of knowledge and skills from expert to apprentice where the priority accorded literacy ability and handwritten evidence of pupils' learning resulted in the type of support Joe accepted from TAs.

In the second section of the chapter, . I will discuss the paradigmatic tensions which emerged from my data to argue that the way in which Joe was responded to as a pupil with SEND, was guided by the interactional worldview. First, I will discuss the influence of the worldview on what constituted valued knowledge. I then discuss the conflicting worldviews which emerged between the intrapersonal and institutional planes. This is followed by a discussion of the implications that the dominant interactional viewpoint had on the organisation and assessment of learning activity in the interpersonal plane, and how this in turn impacted upon Joe as an autistic individual. I then reflect on the opportunities for transformation in individuals' participation and community practices which Rogoff's planes and concept of transformation have revealed in my data and its analysis. The evidence from my study suggests the value of integrating lived experiences into classroom pedagogies. Before the chapter is concluded, I put forward the argument that a shift in worldviews and paradigmatic conceptualisations of what is valued as knowledge and what counts as evidence is important to the experiences of learners like Joe. This chapter, and the whole study, challenges the values and priorities of the interactional worldview which were incorporated into Joe's experiences of lesson activity and relationships. The focus on the psychological alone has been revealed as failing to recognise and respond effectively to the complex relationship between people, their

community, and the influence of previous generations on the dilemmas faced by Joe, his teachers and TAs in the current era. In my conclusion I reflect on what I have learnt from my study about the impact of the interactional worldview on Joe's teachers' and TAs' opportunities to re-imagine and respond to his autistic differences. I suggest that responses to SEND, as being individual and inherent, and defined by criterion led performances in specific skills and knowledge, fall short, and that reframing diversity and inclusion calls for further investigation into the paradigmatic conceptualisations and worldviews of education.

5.2 Rogoff's (2003) planes to interpret the dynamics between context, activity and experience applied to my study

When different aspects of activity are conceptualised as dynamic, they can be scrutinised for the influence they have on social organisation and the participation of different community members. Rogoff's (2016) proposed shift in worldview on culture and its associated practices, tools, and values from interactional to transactional opens up, and allows for, individual and community growth. Opportunities to reflect thereby become opportunities for transformation from the re-thinking that occurs. However, as noted in my literature review, whilst a paradigmatic shift offers a different perspective on phenomena and transformative possibilities, familiarity with a particular worldview and its associated practices creates a resistance to change (Buchanan, 2015). When autism is categorised as an inherent deficit in skills and abilities, within a cognitive-developmental interactional worldview focused explanation, it is not possible to draw upon the vast range of available detailed information on autistic individuals' specialist interests and creative problem-solving abilities (see, for example, Beadle (2018)). The historical-cultural worldview of a community therefore has a significant influence on its values, priorities and how it conceptualises learning, organises its activities, determines its goals of development and measures success. The tacit acceptance or challenge to the values and priorities of previous generations by current members (Rogoff, 2016, p.184) influences the

opportunities for transformation both of the individual and of the community as a whole - for example, in how disability is conceptualised in legislation and experienced in day-to-day activity and relationships. Thus, the paradigm a community is guided by is a sociocultural process in itself.

By applying Rogoff's (2003) concept of transformation within Joe's lessons, analysis revealed that the opportunities for transformation in how Joe, his teachers and TAs participated were guided by school policies and practices embedded in the institutional plane. School policy focused on standardised literacy performances and results, and TA support for pupils with SEND highlighted the high value that the school placed on literacy ability and curriculum knowledge. This context was reflected in the way teachers responded in the five lessons attended by Joe. The impact of policy on classroom practices was clear: my data showed that activity and relationships were guided by expert-novice roles, curriculum content, uniform known-answer-questions and handwriting skill. This was despite the conflict community practices created for the personal values of Joe's teachers, such as the value they placed on pupil-teacher relationships.

It was apparent that what was understood about Joe, as an autistic individual, was dominated by the institutional value accorded literacy and that this dominated the opportunities available for teachers, TAs and Joe to transform their participation. I now reflect on the dynamics between the planes that shaped Joe's experiences, how he was understood as a member of his community of learners in his lessons and opportunities for transformation. First, I address the influence of the institutional plane on the arrangement of class groups, teacher, and TA deployment. Secondly, I reflect on the influence of the institutional plane on repertoires of practice in Joe's five lessons. This leads to the third section focused on the influence of the institutional plane on what Joe's teachers understood about him.

5.2.1 The influence of the institutional plane on the arrangement of class groups, teacher, and TA deployment

Rogoff (2003) has identified that what a community defines as skills and knowledge necessary for mature activity, guides the purpose and organisation of young people's activity by adults. Community practices thus have historical origins. Pupil shadowing and review of the school's curriculum policy showed that Joe's school day was organised around curriculum subjects where lessons were taught by specialist subject teachers, except in the case of cover resulting from staff absence. Interview, observation, and documentary analysis confirmed that teachers worked from curriculum schemes of work. Without exception, Joe followed the same timetable as his mainstream peers.

The interactional worldview of learning as an assembly-line (Rogoff, 1995) and neoliberal concept (Humphreys 2017) where adult authority was dominant was evident - for example, Joe's class groups had been arranged by senior leaders. Review of assessment policy identified that teaching groups were set by ability in English and Maths, and mixed-ability for other subject areas. Pupils' results in standardised literacy assessments on entry into the school at year seven guided how groups were set. Some depended on pupils' literacy ability while others were mixed classes. The priority accorded literacy as an indicator of ability in certain subjects was thus evident.

Actions, discourse, and artefacts, such as written documents, transmit cultural and personal values which shape participatory appropriation and repertoires of practice (Rogoff, 2003). The interactional worldview of the individuals' capabilities being separate from their social experiences, and where differences are inherent was apparent within school practices. Review of the school's SEND policy revealed that the school deployed TAs to mainstream lessons as a core provision for pupils with SEND. The institutional plane response to Joe as a pupil with an EHCP was to provide adult one to one support in mainstream lessons. This suggested that as a pupil with SEND, Joe required additional adult support compared to his peers. Pupil shadowing and observation of activity in the

interpersonal plane was analysed. Shadowing and observation identified that in all Joe's lessons there was one TA present; the support offered to Joe was influenced by the ability group he was in (mixed or low), other pupils' literacy needs and the task type (whole class or independent). The consequence of adult support for Joe meant that he had fewer opportunities than his peers to choose to work independently or with others. Community practice of policy implementation limited Joe's opportunities to transform his relationships in lessons; this was not so for his peers. There was then a clear influence of the interactional world view within the institutional plane and on the different group contexts that had been created. This shaped how Joe, as a pupil with SEND, was responded to in classroom activity as teachers negotiated the pressures to deliver and monitor progress in pupils' acquisition of curriculum knowledge.

5.2.2 The influence of the institutional plane on repertoires of practice in Joe's five lessons

The use of Rogoff's framework of planes allowed the complex nature of social activity to be conceptualised into different aspects. This enabled analysis to spotlight the influence of community and personal values shaping classroom actions and relationships. It was then easier to reflect on the dynamics between the institutional, interpersonal, and intrapersonal dimensions. By reflecting on the dynamics between the planes, my study evidenced the dominance of the institutional plane in participants' repertoires of practice in classroom activity and relationships. These defined distinct teacher, TA and pupil relationships developing in Joe's lessons - for example, in teachers' use of known-answer-questions and uniform approaches when TAs mediated independent learning activity, such as handwriting tasks, with Joe.

In order to bring about change, the interactional viewpoint stresses the need to identify, isolate and control the central causes of individual elements in the social system. The transactional viewpoint, on the other hand, sees transformation as continual and multi-directional and occurring as an adaptive, rather than pre-determined response. Formal

schooling follows an interactional worldview and, thus, according to Rogoff's analysis, deviates from the innate learning that occurs within familial settings (Rogoff 2003; 2016). Rogoff's (2005; 2016) work also suggests that what is understood about SEND and how it is responded to, can differ according to which of these two paradigms are adopted. The transactional view of SEND considers the influence of the policies, routines, and experiences on membership of a community. It therefore has the capability of initiating change in different aspects of a community and extending the range of sources which counts as evidence of learning. The interactional view, on the other hand, assumes the individual requires 'treatment' to mediate social and academic dilemmas and measures progress in terms of an individual's performance in comparison to peers and criteria.

My study evidenced the influence of school curriculum and assessment policies and lesson timetabling embedded in the institutional plane on activity teachers organised in the interpersonal plane. The observation of classrooms showed that lessons were presented in a uniform manner to all pupils, with teachers using a known-answer-question approach (Rogoff, 2005). For example, in History One, when he was asked when the soldiers were told the War would be over; in Science One, when Mrs Smyth asked him to feedback the answer he had written. This was the basis for pupils' learning regardless of task type, such as written or spoken. I observed the way that Joe's participation differed from that of his peers as he attempted to respond in the way he believed teachers expected of pupils. The undifferentiated approach in lessons highlighted Joe's literacy and language differences. Teachers' expectation of written evidence of pupils' lesson knowledge made it apparent that Joe's handwriting difficulties were more significant than his peers' when, during independent learning tasks, adults scribed for him, such as in formal assessment in English One.

Examination of the dynamics flowing between the institutional, interpersonal and intrapersonal planes, identified that the assembly-line learning tradition (Rogoff, 2005) had a significant influence in the classroom. This learning tradition positions teachers as experts and learners as apprentices (Edgar, 2012). Given that the roles people take as

participants in activity are fundamental to what an individual understands about themselves and how experienced they are as a community member (Rogoff, 2003), the roles that emerged in Joe's classroom relationships highlighted the transmission of curriculum information from expert to apprentice and a tacit acceptance that Joe was expected to participate in activity in the same way as his peers. The activity teachers organised, how they presented information and expected pupils to participate, along with TAs roles and actions to support Joe, further evidenced perceptions of him as 'one of the class'. Joe's individualised EHCP provision, which offered alternative ways for teachers to present information and for Joe to evidence his knowledge, was available on the school digital SEND register. However, these suggestions were not applied in his five lessons. Rather, accepted community values, prioritising curriculum skills and knowledge, guided teacher and TA roles and actions and inhibited transformation opportunities for teachers, TAs and Joe.

5.2.3 The influence of the institutional plane on what Joe's teachers understood about him

Rogoff (2016) in her recent work highlights the interactional and transactional worldviews, which can be seen to underpin different paradigms in the philosophy of science; she outlines how these 'worldviews', derived from science-based disciplines, conceptualise learning and pedagogy. The interactional worldview highlights 'the 'psychological qualities' of the individual 'person' (Rogoff 2016. p.183), as separate from underlying social and cultural entities, leading to an emphasis upon the transmission or acquisition of information or skills. In this worldview the individual is a 'unit' separate from their context and relationships. This aligns to a professional cognitive-developmental perspective and clinical diagnosis (as discussed in my literature review). It is the individual who is socially construed as being faulty, deficit, typical or advanced in their development, achievements, and other such social concerns. This worldview and its focus on competition and comparison between individuals was apparent in my study - for example, in the setting of groups by ability. Rogoff (2003; 2016) suggests the interactional worldview underpins much of Western world thinking and views of learning.

In contrast to the interactional world view which dominated activity and relationships in my study, the transactional worldview is seen by Rogoff (2016, p.183) as corresponding to the participation approach she had been developing earlier in her career. It captures the relationship between an individual and the different social contexts they experience and stands in stark contrast to the dominant interactional worldview. A transactional world emphasises 'the social' because learning is integrated in shared activities and the individual is understood in relation to their membership of that community. From this viewpoint, the complexities of human development can be examined from different aspects of influence shaping lived experience, such as within the institutional, intrapersonal, and interpersonal planes. Lived experience is central to both an individual's learning and can also be applied to a community's development, such as the discarding, evolving or introduction of different tools and practices.

The findings of my study identified that the school response to SEND pupils in comparison to mainstream peers, and the attention accorded literacy ability, had a particular impact on Joe's teachers' perceptions and how they responded to his individual needs as a class member. Interviews revealed that teachers had different perceptions of the way Joe compared with his peers. The data highlighted that what was understood about Joe was influenced by the context of different teaching group arrangements: in mixed-ability classes he was described as being lower in his academic and emotional abilities; in low-ability classes he was described as being more academically capable and emotionally mature. Regardless of the differing academic and emotional abilities within Joe's classes, teachers used uniform approaches to present curriculum information and to gather evidence of pupils' work. Consistently, teachers identified Joe's handwriting as problematic, and that this was because he rushed his work to complete it. The attention given to handwritten evidence alone became a barrier to Joe demonstrating his knowledge in alternative ways, such as through the use of digital resources. The practice of setting by literacy ability and the reliance on written evidence of learning emerged to fix Joe's position in relation to the peers in his groups. The evidence from my study is that

when written literacy is prioritised within classroom activity, pupils' interaction and communication abilities and capabilities become irrelevant to their success in learning.

Joe's differences in understanding language and identifying key information were most apparent when he was asked by his teachers to provide a verbal response to a question they posed to the whole class. As sensory and language processing are features of autism (APA, 2013; Attwood, 1998), teachers' broad application of uniform approaches disadvantaged Joe as he attempted to participate in the same way as his peers. Joe's teachers did not challenge the type of talk they used and the influence language has on an individual's development (Vygotsky, 1978; Rogoff, 2003). Mercer and Howe's (2012) explanation of the educational functions of talk in the classroom identified the important role of the type of talk in developing children's reasoning and academic performance. Their review of research highlighted the ineffectiveness of the use of closed questions by teachers that elicited yes/no type responses from pupils or dialogue which required pupils to complete teachers' sentences. In contrast, interactional strategies, where pupils were required to rephrase main ideas and elaborate on thoughts or activities, were found to develop their thinking and better prepare them for independent working. Activities organised to encourage pupils to collaborate in talk, for example by sharing ideas, helped them to challenge and rethink their knowledge. Thus conversational and discussion styled approaches supported academic performance improvements. The use teachers made of pupils' verbal responses to assess knowledge and progress during open ended questions and collaborative tasks illuminated by Mercer and Howe (2012) is important as a point to reflect on how learning is assessed; pupils' contributions to classroom talk offers an alternative form of teacher assessment of ability that is not reliant on the written word.

The evidence in my study indicates that Joe's teachers' and TA's understandings of autism were gained from their personal and professional experiences. Data revealed that their professional experience guided their responses to Joe. The most marked difference between Joe and his peers was observed in both Music lessons. Joe undertook his composition practice and performance in a separate area of the Music department. This

was away from his mainstream peers and in the presence of Miss Kirkhill (TA). Interviews with his teacher and TA revealed this arrangement had been decided with Mrs Calle and Miss Kirkhill because of Joe's difficulties in managing his peer relationships within a 'typical' year nine 'lively' group. As a result, neither Joe nor his peers had the chance to mediate their knowledge and responses to each other.

In other lessons, observation and interviews highlighted a common pattern of approaches and roles in Joe's lessons, which focused on the transmission of curriculum information from teachers to pupils and one-to-one adult support for Joe in handwritten tasks. This made it apparent that his teachers and TA's regarded him as a learner in the same way as his peers and that, in turn, the psychological diagnosis and the associated specific details of how to adjust activity for his interaction, communication and information processing differences held on the SEND register, became irrelevant in lessons. Thus interviews revealed the influence of the institutional plane on adults' classroom actions. For example, teachers adhered to school policy and used seating plans; where Joe sat was decided by teachers in consultation with TAs who teachers reported knew Joe better because they had more time in lessons to work with him one-to-one. Joe's teachers said that, as curriculum subject specialists, they were accountable for all pupils' curriculum learning and were required to produce regular assessment data on this. A tension emerged between teachers' perceptions of their accountability and classroom role, and the personal value they placed on relationships as the foundation for understanding different pupils. Teachers described frustration at the lack of time they had to deliver curriculum syllabi content and felt this restricted the opportunities available for them to build relationships with pupils and understand them as individuals. Interviews revealed that they mediated the tension between the institutional and intrapersonal plane by relying on the results of standardised academic assessments and TAs' experiences of working directly with Joe to understand his responses to the social and learning demands in the classroom. Despite Mrs Smyth's and Mrs Calle's familial experiences of autism and dyslexia, the pressure they reported to get through the curriculum, that reduced the time they felt they could give to better understand individual pupils and adjust activity, meant

Joe's presence in lessons did not transform their approaches. My data thus illuminated a conflict between the values of the interactional and transactional worldviews within adults' experiences (Rogoff, 2016), whereby within national curriculum driven classroom activity the interactional viewpoint of learning emerged as established practice.

5.3 Valued knowledge and the dominant worldview

As noted above, and in earlier chapters, Rogoff (2016) has proposed that what is regarded as valued knowledge is embedded in the surrounding social structure and historical values, along with understandings about the purpose of activity, which is guided by what a community regards to be necessary for it to function and survive. The data in my study clearly indicate that the school curriculum, assessment and SEND policies, as cultural tools, reflected the assembly-line learning tradition which focused on pupils' performances in literacy abilities and curriculum learning. The value accorded handwritten evidence of pupils' curriculum knowledge gained in lessons guided classroom relationships and reflected an interactional worldview of learning conceptualised as the transmission of information and skills from adults to young people (Rogoff, 2016).

Within observed lessons, what was valued as constituting knowledge was apparent when, for example, pupils engaged in independent learning activities were expected to write down their answers to questions in response to curriculum information presented to them verbally or in written format by teachers. Teachers required all pupils to provide written evidence of their curriculum knowledge in their classwork responses so that they could judge the pupils' grasp of lesson content; they did not offer alternative ways of recording information. It was evident that Joe's ability to communicate his knowledge in the way teachers expected was constrained by his difficulties in pen grip, fine motor control and organising his thoughts into written words within specified timeframes. In comparison, when writing demands were removed, as in Science Two (see chapter four) and he was given the opportunity to discuss lesson topics with others, Joe could show his acquisition

of the relevant curriculum knowledge. Handwritten activity, such as filling in worksheets, highlighted Joe's reliance on TAs to write down the evidence teachers required of all pupils' learning. This uniform use of written work to assess learners did not allow Joe or his peers to use alternative ways to demonstrate their knowledge during independent learning tasks. The creative ideas, novel thought, attention to detail, and ability to offer a different perspective in problem-solving (Dicker (2018), see chapter two, section 2.3.7.) that Joe was able to express orally when discussing the planets in Science Two were also lost due to the value accorded handwritten responses. An interactional worldview which dominated Joe's teachers' actions, thus did not allow alternative ways for Joe to express his knowledge.

This focus on a transmission approach to the development of pupils' curriculum knowledge adhered to by teachers, also limited how Joe could demonstrate his knowledge and understanding in comparison to his peers. Teachers' uniform ways of asking known-answer questions, did not adjust for Joe's autistic interaction, communication, and information processing differences. Conn (2014a; 2014b) argues that when an autistic individual's perspective is not considered, both capabilities and abilities can be misconstrued. It was apparent that the paradigmatic view of what counted as knowledge and how learning occurs was significant in how Joe's teachers conceptualised and responded to diversity. Thus, with a narrow view of learning, assessment and diversity being prevalent, what Joe's teachers understood about his autistic needs and his academic participation was fragmented. This resulted in TAs who worked with Joe having to explain his responses when these did not fit with his teachers' expectations.

However, whilst Joe was positioned as needy and less able than his mainstream peers from the dominance and acceptance of policies, routines and practices embedded in the interactional world view and underlying cognitive-developmental psychological paradigm, the way TAs were deployed was underpinned by a transactional and sociocultural perspective. The role of the TA and the relationships Joe had developed with Miss Kirkhill

and Mrs Peterson were founded in transactional arrangements which became essential to his participation in the lessons I observed. TAs supported Joe by facilitating a transactional format for the evidence teachers required of all pupils, including Joe. They also adapted activity around their knowledge of his peer relationships - for example, when Mrs Peterson invited Jessie to contribute to discussion. During independent learning activity, it was accepted that TAs' responsibility was to Joe, whilst teachers circulated around the room and worked with other pupils. The clear difference in the ways teachers and TAs worked in lessons, meant that teachers became reliant on TAs' one-to-one, in-the-moment experiences of Joe to explain his written performance when it was inadequate. In this way, the TAs' informal assessment of Joe, which was embedded in a transactional worldview, contributed to what his teachers understood about his participation and progress in the curriculum in ways that standardised grades could not achieve.

The interactional worldview influences on context and activity, highlighted literacy and the curriculum as valued knowledge and had a significant impact on Joe's experience of his lessons. It also influenced the way in which how he was being responded to in the interpersonal plane had shaped what he had learnt about himself as a member of his community of learners. The dominance of this view and its associated tools, values, practices, and the impact it had on relationships between people in the classroom setting, resulted in Joe's experiences and opportunities, combined with the way in which they were filtered through his relationships with his TAs, being significantly different from his peers. The evidence from classroom observation and interviews suggested that the dominance of the interactional, assembly-line conceptualisation of valued knowledge and learning, and the ways roles and relationships were constructed, had an impact on Joe's interactions, communications, and information processing. Having a similar influence was the way in which teachers thought that they had to present information and arrange tasks to enable Joe to try to demonstrate that his curriculum learning was the same as for his mainstream peers. As suggested by Rogoff (2003), values transmitted in activity influenced how Joe identified himself as a member of the classroom community. It was

apparent that his membership of his classroom community was constrained by the overarching dominance of the interactional worldview in his school setting. His teachers and TAs validated this worldview in their tacit acceptance of policies, practices and which they displayed in their actions and roles.

The pressures teachers described around their compliance to categorise pupils on narrow criteria alone did not enable them to consider and act on Joe's different way of interpreting and responding to information which had been identified in the SEND register. This compliance of individual community members to the interactional worldview of the school context was clear in my data. The argument made by Beadle (2018), as an autistic individual, for reframing autism as an 'alternative way of thinking' alone would appear insufficient to mediate changes in how Joe was responded to in his lessons and within the systems and policies of his school. It is therefore clear that in order to elicit change and transform individual repertoires of practice, there is a need for a shift in worldview of schooling away from the dominant interactional worldview. This supports Rogoff's (2016) call for a paradigmatic shift to a transactional and participatory approach in the ways schools conceptualise and organise learning. It challenges the assumptions of an interactional and neoliberal worldview of education, which can be seen to create division and segregation through categorisation by characteristics, such as ability/disability. Reframing the focus of education and what constitutes valuable knowledge away from inherent ability and performance outcomes to the relationships and contributions individuals make as they coordinate and assess their knowledge together in learning endeavours, offers an alternative experience of community membership. It was working within a transactional worldview which benefited Joe in his participation during Science Two (see chapter four, p.97).

5.4 Conflicting worldviews

Learning within the interactional worldview (Rogoff, 2016, p.183) is conceptualised as individual, inherent, and measured against outcome criteria, such as those associated with examination grades. In contrast, a transactional perspective considers learning and its assessment as a process, such as in intent participation where learning occurs by observing and pitching in (Rogoff, 2005; 2016). My study also indicates that dominant institutional worldviews of knowledge and learning within institutions and professional communities can lead to approaches conflicting with individual worldviews of learning held by participants, which in turn influence the type of activity that is organised and how relationships are arranged.

In the context of Joe's lessons, classroom activities and relationships evidenced Rogoff's (2016) interactional conceptualisation of learning in the way curriculum information was presented and classroom roles were arranged. The evidence from observations and interview (see chapter four) showed that, with the exception of Music lessons, Joe's teachers followed a known-answer-question format to transmit the information from syllabi which pupils were required to evidence in their work and that teachers were expected to assess.

In contrast to the data giving evidence of the explicit transmission of curriculum information to pupils, data from the teacher interviews revealed frustration that: the pressure to comply to curriculum and assessment policy when they felt the time allocated to them as scheduled sessions did not allow them time to cover syllabi content; their own experiences of their subject were not reflected in the curriculum; and pupils struggled to relate to the content. Limited timetabled time and the pressure to get through syllabi - for example, when lessons were timetabled once a week (see appendix 3) - inhibited the time teachers reported they could develop their relationships and understanding of different pupils' social needs and interests. Teachers' acknowledgement of the value of relationships in learning about the pupils in their class illuminated an implicit transactional worldview running underneath the dominant, formalised perspective of learning apparent in lesson observations.

Unlike the restrictions teachers felt under as they applied an interactional conceptualisation of learning to classroom activity, TAs demonstrated that what they understood about Joe had developed through transactional learning. TA deployment as a policy and practice response to support Joe's academic development, created greater opportunity for TAs to develop a relationship with Joe (see chapter four). Their insight into his worries and curriculum challenges, which emerged from their experiences of working with Joe, were valued by him. This suggested that the shared participation approach they worked within and which they undertook in the observed lessons, was more sensitive to Joe's individual needs; this knowledge was fundamental to the way they supported his participation and development of curriculum knowledge.

Experiences are fundamental to an individual's transformation (Rogoff, 1995; 2003). The dynamic, intuitive actions and discourse of others during face-to-face interactions has been documented as being difficult for autistic individuals to interpret, evoking overwhelming experiences of anxiety, and confusing the ability to organise socially expected, appropriated responses (Attwood, 1998; Conn, 2014b; Jackson 2003). My reading of Rogoff and the corpus of autism literature (see chapter two) suggests that when managed strategically to reduce anxiety, joint working is a critical aspect in the development of participatory appropriation and transformation in repertoires of practice; this is necessary both for individual well-being and the enhancement of curriculum learning. It is clear that autistic individuals are vulnerable to experiencing heightened socio-emotional responses to activity and relationships (Beadle, 2018; Saggars, 2015; Yergeau, 2011; Attwood, 1998), which have an adverse influence on learning potential (Hay and Winn, 2010) and disrupt curriculum engagement (Conn, 2014a) when teachers assume that all pupils have the same innate ability to organise information. Thus, Joe's experiences of classroom activity and relationships were an important aspect of his learning: for example, the opportunities available for him to interact and communicate with other community members were important to his relationship development and emotional regulation. However, as with the findings of Humphrey and Symes (2011) and

Symes and Humphrey (2012), the deployment of TAs as a response to mediate SEND did not accord Joe with the same opportunity as his peers had to learn together and share ideas. Learning, conceptualised and organised as a transmission model in Joe's Science, English, History and Maths lessons and centred on known-answer question activities, limited the ways pupils could respond. This was particularly so for Joe when working with an adult in a one-to-one situation. In contrast, in Music composition, pupils were tasked with generating a creative response and cooperating with peers to achieve this. Joe continued to work with an adult, Miss Kirkhill (TA), and did not participate in group composition. This arrangement of working in a separate area of the department, away from peers, had been agreed by Mrs Calle (Music) on the advice of Miss Kirkhill that Joe could not manage the anxiety some of these peers caused him from their behaviours. Learning conceptualised as the transmission of curriculum information and skills was thus problematic to Joe's relationship and emotional regulation development.

The paradigmatic tension which emerged between the transmission and transactional conceptualisations of learning highlighted a conflict created from the dominant interactional worldview within the school context and different cultural expectations on teacher role, transmission of directed syllabi content and the organisation of learning time through timetabling arrangements. In contrast, teachers' and TAs' reflections on the skills and knowledge required of them to negotiate adulthood and integrate into community activity, indicated the greater relevance they saw in transactional learning. For example, Mrs Calle described the need for cooperative as well as instrumental skills when playing in a community band. As with the findings of Khader (2012) and Buchanan (2015), the pressure to comply with institutional traditions and values in classroom practice was problematic for Joe's teachers because it created a narrow focus and standardised approaches aimed at all learners, which inhibited them from using their experiences of their relationships with pupils to individualise learning.

5.5 Opportunities for transformation:

My focus on one autistic individual and use of Rogoff's (2003) analytic framework of planes, has allowed the lived experience of 'having a diagnosis' to be investigated for what this means in daily activities rather than from just a clinical perspective. I now discuss the influence of the institutional plane that emerged in my data analysis and how the three different planes influenced the opportunities available for transformation in the way Joe, his teachers and TAs participated in classroom activity. I suggest that when education is perceived from an alternative worldview and learning is conceptualised within a different paradigm, then the opportunities for transformation in participation become more inclusive of the different experiences of community members.

In my study, teachers did not implement the suggestions for adapting activity around Joe's interaction and communication differences that were described in the SEND register. Teachers' low engagement in implementing interventions and approaches embedded in empirical research they find difficult to relate to, and the pressures they face in the competing policies, priorities and organisational structures of their educational context, create barriers to changing outcomes for autistic young people (Guldborg, 2017). These barriers are located in the positivist research paradigm and traditions of schooling as an 'assembly-line' organisation (Rogoff, 2003). Rogoff (2016, p.186) is clear that the worldview a person is familiar with influences how they participate in activity and respond to the values and priorities they perceive of the context they are in. My data has shown that there is a dynamic relationship between the intrapersonal, interpersonal, and institutional planes. Guldborg (2017) argues that teachers' classroom approaches are shaped by the choices they select from a variety of different sources, such as educational, development and behavioural theory, their perceptions of their schooling context and experiences. In this way teaching is crafted from a mixture of theory, culture, and practice rather than adherence to a specific paradigm, values, or beliefs. My study has highlighted the dominance of approaches focused on power relations between adults and young people embedded in wider cultural expectations of the value of literacy skills and

knowledge perceived by teachers. Joe's experiences were shaped by his difficulties in literacy that made him needy and dependent on adult support in his mixed ability lessons.

It was apparent that Joe, his teachers, and TAs were familiar with the interactional worldview embedded in the policies, practices, and routines of their setting. For example, the purpose of formal assessment within the school context, as stated in its curriculum, assessment, and SEND policies, established the belief that pupils' reading age provided teachers with valuable information on individuals' learning ability potential. Within lessons, informal assessment – demonstrated, for example, in teacher repertoires of practice as uniform, known-answer-question approaches – provided teachers with feedback on pupils' understandings and engagement within the context of the lesson. The tacit acceptance and dominance of the interactional worldview thus meant that, for Joe, opportunities for transformation in his learning lay in the information his teachers gave out and which TAs mediated. Teachers did not adjust activity despite the transactional opportunities available to them, such as through their responsibilities to personalise their teaching (DfE and DoH, 2015, para 1.24), the access they had to the digital SEND register and their accounts of familial and professional experiences of autistic individuals. Joe's participation in the tasks his teachers set became the responsibility of TAs in the lessons which were observed. The dominance of the values and priorities of the institutional plane on activity and participation was evident. As argued by Guldberg (2017) and Rogoff (2016) a paradigm shift from interactional to transactional offers more relatable and responsive understandings, interventions and outcomes that, as my study has shown, could benefit pupils whose strengths are not recognised in the standardised literacy knowledge and skills framework which dominated Joe's classroom experiences.

A community's traditions, values, and practices can be challenged, adjusted, accepted, or discarded by its members (Rogoff, 2016). My literature review suggested that challenging accepted ways of thinking and doing in the classroom is influenced by how empowered an individual or a group of individuals feels to incorporate their personal

experiences in their classroom approaches and how they relate and respond to pupils in their professional role within their context (Khader, 2012; Buchanan, 2015). For example, in interview, Mrs Lennie highlighted that, on school trips, she did not use written tasks, and focused on engaging pupils in asking questions, holding artefacts and role playing to capture their imagination and experience 'the moment'. However, in both History lessons, she required all pupils to consolidate their knowledge in written activity. For Mrs Lennie, there was an apparent difference in how empowered she felt to alter her approach within different contexts and the pressure she felt to comply with school expectations in the classroom was evident in interview. Analysis by means of considering activity within the planes therefore revealed the dominance of the institutional plane over the intrapersonal plane and this influenced activity and relationships in the interpersonal plane in the classroom; in contrast, when away from the school setting, Mrs Lennie was guided by her own values.

There is evidence that teachers' classroom approaches are influenced by how they negotiate the dominant paradigm and worldview of their context, and interpret and respond to their obligations to both the curriculum and different learners with their own values and experiences (Altan and Farber Lane, 2018; Rogoff, 2016). My data from observation and interviews made it evident that Joe's interaction, communication, and information processing differences were not adjusted for in the way teachers presented information or expected pupils to evidence their work (see chapter four). In interview, it was apparent that what teachers understood about Joe's participation and performance in tasks on a lesson-by-lesson basis, was from what TAs told them when they asked, or if Joe had not completed work. Opportunities for transformation in teachers' understandings of Joe, revealed by analysis of the planes as applied to the research site, were guided by the transactional experiences of TAs. Transformation of teachers' classroom practices emerged to be constrained by the curriculum and assessment obligations they perceived within the institutional plane which they felt did not allow them the opportunity to 'get to know' the pupils in their lessons.

The focus on the conversational analysis in studies such as Ochs *et al*'s (2005); Stribling *et al*'s (2006; 2008), and alternative ways of interpreting autistic individuals' responses, open up opportunity to challenge both deficit positions and the paradigmatic discourse of autism as a disorder. Milton (2014, p797) has called for a challenge to ideologies equating being autistic to being disordered whereby autistic people are perceived as *'machine-like, and unable to replicate appropriately the behaviours and understandings of non-disordered humans (at least without 'intervention')*. It had been evident in observation and interview that literacy and curriculum knowledge were established as a proxy for understanding pupils by assessing ability and information learning. Teachers' use of uniform approaches, known-answer-question tasks and the emphasis on interventions to support pupils to access curriculum activity, such as from the assigning of TAs as scribes and readers, within the SEND policy, reinforced the dominance of the interactional worldview and assembly-line learning tradition within the wider school context. As with the findings of Khader (2012), discussed in my literature review, when under pressure to 'get through' syllabi content and formally report on pupils' progress expected of the teacher role within this learning tradition, on a day-to-day basis teachers accorded greater attention to their academic obligations to the class as a group rather than the individuals it was comprised of. Thus, it was apparent that teachers' responses to Joe were limited by their compliance to institutional values and conceptualisations which focused on the transmission of curriculum information from adults to pupils. The assumption within the SEND policy that teachers would access the SEND digital register as part of the school communication system, to plan for Joe's interaction and communication needs, was not apparent in the lessons which were observed. The priority accorded curriculum and assessment policy over the SEND policy within classroom practices was therefore apparent and defined that what was understood about Joe, and how he was responded to was embedded in his performance in literacy activity alone.

The influence of the institutional plane on interpersonal activity and Joe's experience of activity and relationships was clearly embedded in the interactional worldview of education and the cognitive-developmental paradigm of diagnosis. The interactional worldview guided the school's curriculum and assessment policies. However, autism

manifests itself in diverse ways in different individuals (Conn, 2014a; Ochs *et al* 2005; Jackson, 2003) and affects the way individuals recognise, interpret, and respond to information and engage in activity and relationships (Attwood, 1998; Yergeau, 2011; Beadle, 2018). Information in the school's SEND register identified a range of strategies teachers could use to support the ways Joe's autism impacted his relationships and access to the curriculum. However, it became apparent that what was understood about autism and how Joe was responded to within a transactional worldview were different from what was available in interactional practices. Whilst the cognitive-developmental paradigm of the clinical setting and the school context positioned Joe as sitting outside of standardised norms (see literature review) in two different domains – the social and the academic – it was evident that Joe's differences in interaction, communication and information processing areas, which had been important within the clinical setting and determined his 'special educational need' status, were not considered problematic to his teachers and TAs in the classroom. Joe's literacy and handwriting skills in comparison to his peers had an influence on teacher and TAs responses, and analysis revealed that the practice of TA deployment led teachers to feel they did not need to alter the way tasks were presented to him as suggested within the SEND register. The tacit compliance of Joe, his teachers and TAs to their different classroom roles, the shared understanding of what constituted knowledge, and how learning was acquired and evidenced which were embedded in an interactional worldview, limited opportunities for transformation in classroom roles and practices.

The attention accorded Joe's literacy needs and the transmission of curriculum knowledge which were highlighted in my data and its analysis, made it apparent that the interactional worldview and how its associated policies, practices and routines were being implemented did not reflect his autistic profile. Information within the SEND register which was available to teachers, such as how to present information to Joe, was not used within the lessons observed. The assumptions of the interactional worldview that the individual is an entity separate from their environment, with an innate ability to learn (Rogoff, 2016), positioned Joe as needing to acquire and evidence the academic skills and curriculum

knowledge in the same way as his peers, and his teachers as not needing to adjust information for him. Thus, it was apparent that the interactional organisation of learning did not respond to Joe's interaction, communication, and information processing differences. This caused him anxiety in his peer relationships and inhibited him from expressing his knowledge in an alternative form. Rogoff's (2003) concept of transformation, as understood following an analysis of the classroom context by the three planes, made it evident that the interactional worldview dominating classroom practices and Joe's experiences was problematic for his autistic profile being acknowledged and met. The frustrations and anxiety Joe reported that his peer relationships caused him, suggested the use of uniform, standardised conceptualisations and approaches to learning embedded in the cognitive-developmental paradigm had been insufficient to enable him to participate with them in activities without adult support. Along with no alternative means of evidencing his knowledge being made available within classroom practices, Joe's opportunities to transform how he was perceived by others were limited by the policies, practices, and routines of the dominant, interactional worldview.

Given that opportunities for transformation are embedded within a worldview, the assembly-line learning tradition policies, practices and routines apparent in Joe's community of learners and evident in classroom activity and relationships limited what staff felt able to do to respond to Joe. Rogoff's (2016) suggestion of a participation approach as an alternative organisation of learning activity, embedded in a transactional worldview, proposes different assumptions to the mainstream, interactional perspective of education evidenced in my data and which limited opportunities for individual and community transformation in activity and relationships. In contrast to an interactional perspective, which compares an individual's performance with that of others' learning, under a participation paradigm, learning is dynamic and integrated in the activity and relationships a person shares with others. The participation approach offered by Rogoff (2016) as an alternative organisation of learning activity is therefore continuous and evolving, compared to the transmission/acquisition approaches of the interactional worldview. Within this transactional worldview, opportunities to transform an individual's

repertoires of practice and participatory appropriation becomes a community's concern and is enabled by the attention accorded to the processes of learning, such as collaborating and reflecting on the contributions different people make.

Learning as a dynamic and relational activity, such as learning through observation and 'pitching in' (Rogoff, 2016, p185) brings a focus to interaction, communication, and the presentation and negotiation of information. The focus Rogoff (2016) gives to learning as a dynamic, co-constructed process was evident in the relationships between Joe, Miss Kirkhill and Mrs Peterson, and these relationships were highly valued by him; in comparison, his peer relationships were fragile and opportunities for these to be developed were guided by TAs. Whilst teachers described the importance they placed on developing their relationships with pupils and using their personal and professional experiences of SEND to understand Joe, these were inhibited by their obligations to pupils' performance in a narrow range of skills and knowledge. For example, in interview, Joe's teachers related to their own familial experiences of autism and SEND and, in the case of Mrs Calle (Music), to her experience of teaching another autistic pupil in an older year group (see appendix 9). Despite their lived experiences, in-the-moment activity in the interpersonal plane and data from follow-up interviews showed that the arrangements of the institutional plane, dominated by the cognitive-developmental paradigm, shaped how teachers responded to Joe. For example, the decision to remove Joe from group activity in Music, and the practice of adults deciding by whom he sat and with whom he worked, had a significant consequence for Joe because these highlighted his differences, when the adolescent shift and desire for peer acceptance and approval has been noted to be important to emotional well-being (Hay and Winn, 2012).

My study challenges the ability of the interactional worldview to respond to autism as a different processing and relational way of interacting and interpreting experiences when it has a narrow focus on what is valued as knowledge and ability. It would seem that Rogoff's (2016) call for a paradigm shift in the way learning is conceptualised, organised, and assessed and which empowers lived experience to be integrated with professional

practice and information within documents, such as the SEND register, offers an alternative response to how autism, as part of diversity, is recognised and responded to within the classroom.

5.6 Implications for organisation and assessment of learning

The interactional worldview conceptualises learning as innate and a staged development inherent in an individual; this separates a person from their context and invites assessment of psychological mechanisms to examine causes of variabilities between people (Rogoff, 2016, p.183). In contrast, a transactional worldview, and Rogoff's participatory learning based approach, sees learning as a fluid process of transactions between people; this includes tools, routines and practices created by others in former generations and enables different aspects of development to be scrutinised, such as the individual or the institutional (Rogoff, 2003; 2016). The way in which these worldviews underpin how professional communities, and the individuals working within them, understand and determine learning, stimulates reflection on the influence practices have on community members – for example, the organisation and assessment of learning.

It was evident in my data that there was an institutional reliance and high value placed on the formal assessment of reading ages. This assumed that individual pupils' academic competence and the diversity between them was reflected in the scores achieved in standardised assessments of knowledge on literacy, such as the structure of written English, spelling and reading ability.

Osberg and Biesta (2008) recognise the complexity and dynamics of education as a system. This removes the focus on system outcome alone and tracking back or projecting forward to static points to targeted change or explain success/failure and enables multiple opportunities to challenge and change trajectories, such as pupil engagement and

performance, teaching approaches and assessment procedures, interpretation of policy and policy change. Thus the overarching worldview in which education is conceptualised as a system has implications for transformative possibilities. Understanding the dominant worldview and its influence on educational policies and practices is thereby important to be able to alter individuals' experiences of membership and activity and outcomes. Scrutiny of different aspects of activity and how the varied components of the system interplay with each other - for example, between the institutional, interpersonal and intrapersonal planes (Rogoff, 2003) - provides the opportunity to reframe inclusion. The evidence of my study suggests that for Joe, as an autistic individual, the interactional worldview that dominated policies, practices and relationships did not allow for transformative opportunities of community members. Established and accepted relationship and activity practices, and policies focused on academic assessment and performances evident within his community of learners, reflected a static system focused on specific skills and literacy outcomes. For example, the scores pupils achieved prior to starting in year seven determined the teaching groups they were placed in by secondary school senior leaders. English, Maths and Science groupings were allocated by ability while other curriculum subjects were taught as mixed ability. The arrangement of different pupil groupings had an influence on lesson context and class sizes: mixed ability classes had approximately 30 pupils of a varied range of reading ages; in comparison, low-ability classes had between 15 -20 pupils whose reading ages were similar and most of these pupils were on the school SEND register. Joe was thus established as a low ability pupil by his placement in groupings and the information teachers accessed - for example, reading age scores. The dominant influence of literacy ability on what teachers understood about Joe's ability to learn lesson material established that in mixed-ability grouping there was a tacit agreement that he required the support of a TA during independent learning activity and, in low ability groups, he needed an adult scribe during formal assessments of his learning.

The use of literacy ability to determine which pupils attracted additional support, created a discrepancy between Joe's interaction and communication needs identified in his EHCP

along with the strategies identified in the SEND register, and the focus accorded the policy and practice responses to literacy needs. Joe's EHCP identified that his support needs were on account of his interaction and communication difficulties; the support he received in lessons was for handwriting. Bodrova, Leong and Akhutina (2011) make the point that teachers' understanding of pupils' influences individual pupils' classroom experiences. What is understood about autism and an autistic individual is important. The medical model of autism centres on deviation from standardised norms and deficit in relating to others in communication and information processing style. When autism is framed and understood as a disorder, rather than a different cognitive style, the benefits of attention to detail and motivation focused on interests found to engage autistic individuals in educational learning are lost (Wood, 2018). In contrast when autistic cognitive style and interests are embraced and included in curriculum activity and relationships, participation in school activity was found to shift the way support was given; ineffective adult prompting and task repetition was reduced and more positive instruction was given. The shift in task and relationship types that increased autistic pupils' engagement identified also highlighted tensions in applying principles of inclusion focused on flexible approaches, experienced by teachers responsible for delivering and navigating 'a seemingly inflexible, prescriptive education system' (Wood, 2018, p48). Conn (2014b) has identified that what teachers understand about the behaviours and participation of an autistic pupil benefits from awareness and understanding of both autism and the way this influences how an autistic individual functions in school activities. The apparent incompatibility of the current outcome-driven system with the social and community focus suggested as being more flexible and responsive to the different experiences and development of individual's (Wood, 2018) represents tensions situated in different paradigms. Given this, a participation approach embodied within a transactional worldview offers greater opportunities for teachers and TAs to better understand and respond to the 'needs' of an autistic individual.

Reframing institutional assumptions and practices, for example about ability, is key to changing how individual community members participate and contribute to activity (Rogoff, 2016). Within a transactional worldview and a participation-based approach,

collaboration between people is fundamental to transformation (Rogoff, 2003). To support change in professional practice, empowering teachers to reflect on and share practices enables the co-construction of cumulative knowledge from their experiences of a shared context (Guldborg, 2017). The lack of opportunities available to Joe's teachers and TAs to share information was embedded in the organisation of the timetable and staff deployment. This led to a fragmented teacher understanding of Joe and a tacit acceptance by teachers that he was just one of the class. In contrast, TAs were more alert to his affective needs and experiences, his motivations and his difficulties. The abilities to co-ordinate, negotiate, contribute and reflect on information to develop and master knowledge and skills require a continual exchange of ideas, acceptance of guidance from others, consideration to others, and use of initiative as part of taking responsibility as a community member. The focus on relational mastery within the transactional model (Rogoff, 2016) requires an alternative organisation of learning activity where assessment of outcomes is focused on the contributions of different members - for example, the support given to a less experienced individual as part of their progress. The reciprocal basis of the transactional worldview with a participatory-based approach (Rogoff 2016) distributes the responsibility for participation and progress between different community members and how they negotiate their interactions. This suggests a community responsibility to include and support all its members in its endeavours, where the process of reflection creates an opportunity to adjust activity and alter contributions around learners' progress. In contrast, the categorisation of learners by literacy ability was based on an interactional worldview, resulting in the TAs who supported Joe's literacy difficulties having to focus on a set of specific skills and knowledge demanded by the dominant interactional worldview within Joe's school context.

His teachers' tacit acceptance that their TAs were more attuned to Joe's needs than they were meant the explicit responsibility teachers have for pupils' learning (Great Britain. DfE and DoH, 2015) relied on TAs reacting to the types of tasks teachers presented to the whole class, and working out how they could adjust these so Joe could produce evidence of his curriculum learning in the same way as his mainstream peers. Thus, Joe relied on

the transactions within his relationship with TAs to participate in the activities his teachers assumed all pupils could access. For example, in mixed-ability classes during independent learning tasks set by teachers, TAs positioned themselves next to Joe and worked with him, while his peers chose to work by themselves or with another pupil. Joe's experience of how learning was organised and how he was responded to was, thus, determined by the interactional worldview which underpinned policies, routines, and practices. However, this was problematic and created tensions, because Joe and his teachers were heavily dependent on the intervention of his TAs. Fundamental to Joe's progress was TAs' in-the-moment response to the information provided by teachers. The evidence of the influence of the interactional paradigm on the organisation and assessment of learning in my study also highlighted the way that lessons were run back to back, and the arrangement of different areas of the school into departments. This led to an emphasis being placed on the teaching of the set, externally imposed curriculum, and inhibited the opportunity for teachers and TAs to co-construct social and curriculum learning opportunities for Joe. The transmission of curriculum content from teachers to pupils and use of known-question-answer approaches were also accepted practices that allowed pupil proficiency in learning to be standardised. The routine deployment of TAs to follow the same timetable as pupils, did not allow for collaborative opportunities between staff at lesson changeover or during lessons, so the TA role appeared to inhibit teachers' interactions with Joe. Added to this, the role of the TA was embedded in the interactional worldview of the individual's inherent abilities because the TA was expected to mediate the set external curriculum based information for pupils, in a way which conflicted with their SEND role and their understandings of what should count as evidence of learning achievement. The dominance of the interactional worldview of learning and participation in Joe's setting, resulted in Joe's literacy, writing and decoding skills being prioritised over his interaction, communication and information processing needs, which were critical in relation to his diagnosis as an autistic learner.

5.7 The value of integrating lived experiences into classroom pedagogies:

This study underlines the critical importance of listening to what young people like Joe and Jake have to say about their lived experience of education. There is evidence that autistic individuals sit 'outside' of standardised expectations in their relationship development, interpretation of language and organisation of thoughts through clinical diagnosis (APA, 2013). It is thus of little surprise that, without suitable adjustments in planned activity, pupils with autism experience community activity and relationships differently from their mainstream peers (Attwood, 1998; Emam and Farrell, 2009) and report that they sit on the periphery of, or are excluded from, the activities of their peers (Jackson, 2013; Williams, 2010). I now discuss how the use of Rogoff's planes, concept of transformation and suggestion of a paradigmatic shift has enabled me to re-consider the issues, difficulties and frustrations voiced to me by parents, teachers and autistic young people that initiated my research.

Scrutinising the relationship between the institutional, intrapersonal, and interpersonal planes and the influence of paradigm dominance in the context of a setting on autistic experience, offers a challenge to cognitive-developmental conceptualisations of learning and ability. The sociocultural conceptualisation of learning as a transactional worldview suggests that the transformation of teachers' practices necessary for the inclusion of pupils with interaction and communication differences, requires a shift in the values assigned to literacy and subject content knowledge established in the institutional plane. The current emphasis on performance results and the pressures teachers face to deliver content in the timeframe allocated to them by the senior leaders within my study, has highlighted that the specific strategies detailed on the SEND register risk being lost in practice when the assumption is made that teachers will access usual communication channels to inform their planning and delivery of lesson material within their responsibilities to the *CoP* (Great Britain. DfE and DoH, 2015). It seems that when teachers feel constrained in the time they have available to deliver the curriculum content that they are accountable for, and when a high value is placed on academic results, pedagogical practice becomes focused on the transmission of knowledge delivered in a standardised way (Jenlinks, 2014). There seems limited scope within an interactional

worldview to respond to the diversity of strengths and abilities of learners. Applying Rogoff's (2003; 2005) concept of transformation, the danger that emerges from the interactional worldview is that when pupils with SEND are understood and responded to on the basis of comparison with their peers' performances in literacy tasks and assessments, interaction and communication differences in 'social literacy' become irrelevant and the expectations of teachers to individualise pupils' learning are put at risk.

Research has shown that autistic individuals are at greater risk of experiencing social isolation and rejection from their peers and of underachieving in their curriculum learning (Hay and Winn, 2012). Teachers find managing the behaviours of autistic pupils exceptionally challenging (Fredrickson, Jones and Lang, 2010; Emam and Farrell, 2009) and feel insufficiently qualified, prepared and supported to respond to the differing individual needs of this specific group of pupils (Allan and Youdell, 2017; Grenier, 2010). The evidence of my study has revealed that accepted institutional values, policies and practices on curriculum knowledge and literacy constituting ability were upheld in classroom activities and relationships. It was apparent that systemic responses did not accord teachers and TAs the time and space to share information about Joe and plan alternative ways for lesson content to be presented and evidenced. The concern this has raised is that the dominance and acceptance of institutional values, policies and practices framed in the interactional worldview can deny an autistic individual the same opportunities as mainstream peers to enhance their learning and relationships and transform their academic results and emotional wellbeing.

The emotional and social significance of being autistic within the mainstream context of school when adjustments for interaction and communication needs are not made has a profound effect on mental wellbeing and participation. Joe, like Jake, felt tormented by being responded to as a pupil with low ability, and frustrated by the experience of uniform teaching approaches, presentation of information and the expectation of handwritten evidence which has denied alternative ways to express knowledge and insight into the world. What is understood about an individual with autism, and how empowered and

supported teachers feel to make adjustments, is critical for an autistic individual's engagement and participation in community activity and relationships (Conn, 2014a). Joe's teachers' uniform presentation of information and tasks despite personal experiences of autism, has suggested the powerful influence of the learning tradition on classroom practices. Given that the value of teachers' professional and personal experiences supports more creative and less didactic classroom approaches (Altan and Farber Lane, 2018) and that the individuality of autistic experience requires an individualised approach grounded in actual and not assumed strengths and challenges that influence daily functioning in tasks (Attwood, 1998; Conn, 2014a), the limitations of the education system framed within the interactional world view were apparent. Opportunities for reframing autism and responding to an autistic individual to improve outcomes, such academic achievement, can be created when staff collaborate and share pupil information from their experiences of in-the-moment activity and relationships (Timmi, 2011). The focus given to curriculum and literacy skills and abilities evident in policies, routines, and practices, resulted in an unintended disregard of Joe's interaction, communication, and information processing needs.

The influence of the interactional worldview on what was shared about learning through policies and how these were interpreted and implemented in routines and classroom practice, made it evident that SEND was a particular area that required specialised support for pupils to be able to participate in mainstream activity. Within classrooms, teachers are responsible for the organisation of learning activities (DfE and DoH, 2015). Teachers' actions are influenced by the knowledge and resources they use, the support they receive from colleagues and leaders, and how empowered they feel within their setting to develop their range of approaches (Khader, 2012; Buchanan, 2015). Thus, classroom activity becomes the plane where neurodiversity, such as autism, emerges as a disability, difference, irrelevant or 'alternative way of being' (Beadle, 2018). Therefore, an awareness of worldview and paradigmatic influences on policies, practices, routines, participation, and experiences is important, for these issues may enhance or inhibit diversity as leaders and teachers implement their obligations.

5.8 Conclusion:

My study has highlighted a tacit acceptance of the dominance of the interactional worldview paradigm and the influence this had on Joe, his teachers' and TAs' participation and perceptions of membership. Interviewees gave verbal accounts of the value they placed on their lived experience of relationships as the forum for understanding and making adjustments for others' differences. Nevertheless, the dominance of the interactional over the transactional worldview delineated by Rogoff (2016) had a significant influence on Joe's experience of his mainstream lessons. It was evident from my review of school policies and my observations of Joe's five lessons that the policies, routines, and practices were underpinned by the cognitive-developmental paradigm, which also stresses an interactional worldview. This had implications for how Joe could be responded to as an autistic individual from a transactional worldview and limited the opportunities teachers and TAs perceived available to them to challenge and alter accepted routines and practices. Challenging established and accepted paradigmatic views and practices - the foundation for transformation in values and practices - requires an awareness of the influence of the underlying community paradigm (Rogoff, 2016, p186) and, in schools, collegial support to initiate changes in classroom practices (Buchanan, 2015).

Rogoff (2016 p.184) has highlighted the ways in which the dominant worldview underlying a community's way of life is important to individual as well as community development. The paradigmatic influence shapes what members expect, accept, and how they participate; newcomers become apprenticed in a community's ways as they become more familiar with its established practices - for example, as children transition into compulsory schooling and across its different phases. Therefore, the worldview underpinning a community's activity and the roles of different members becomes important for understanding participation and transformation opportunities within a

particular social setting. This is because how an individual responds to community expectations and what they understand about roles and the purpose of activity, are embedded in the underlying worldview considerations of what constitutes knowledge, and how learning is conceptualised, organised, and communicated. For example, an interactional view of learning is associated with the use of transmission or acquisition approaches to information and skill development; in comparison, a transactional viewpoint lends a focus to learning as an integrated process during shared activity. The dominance of an established and accepted interactional paradigm apparent within my study data inhibited the way in which Joe was able to respond within the classroom, show his learning, and interact with his peers and adults. Joe's experience as a community member had a clear influence on how he behaved (in his role as a pupil) and his particular beliefs about himself, his abilities and what he could do in the future. Thus in relation to Rogoff's (2003) concept of transformation, evidence in this study suggests that the possibilities of changing ways of thinking, perceiving and responding by the individuals within Joe's community (see literature review), were impeded by the interactional worldview. It is this tension between the different knowledge and learning paradigms, apparent in Joe's school context which influenced repertoires of practice and shaped participatory appropriation, that warrants further discussion.

Joe's experience has illuminated that in a context where academic ability focuses on specific skills, knowledge acquisition and assessment performances, and where an autistic individual complies with the social-learning behaviours teachers expect of pupils, being autistic does not attract attention and support. Joe's report of the anxiety and isolation he experiences in peer relationships, however, is significant to his differences in interaction and communication, particularly at a time when adolescence desire for peer acceptance and approval is elevated (Hay and Winn, 2012). There is evidence that knowledge is transformed during transactional activity (Rogoff, 1995; 2003; 2005) and that peer relationships during adolescence are fragile in the quest for acceptance and approval of others (Hay and Winn, 2012). But the attention accorded literacy, framed within an interactional world perspective, did not support Joe's affective development. In

comparison to his peers, Joe's opportunities to transform his membership were limited by the inherent and accepted focus policies and practices gave to the curriculum and measurements of pupils' success embedded in an interactional worldview. Joe therefore relied on the relationships forged with the TAs who supported him, to negotiate curriculum information and his peer relationships in lessons. The influence of the interactional worldview and conceptualisation of learning fixed in the institutional plane, was thus a significant barrier to Joe's experience of membership, as an autistic individual, in his community of learners.

5.9 The contribution of my study to future educational research and school-based practices.

The evidence from my study has led me to challenge the interactional worldview of learning and learner diversity in meeting the needs of an autistic individual. Joe, as an autistic individual, became disadvantaged through the priority policies, routines, and practices gave to literacy ability as critical to all pupils' learning and evidencing their curriculum knowledge. The unique contribution of my study is that it has revealed the influence of an interactional worldview on policies created with the intention of supporting diversity. These became limited by their focus on the standardisation of ability as literacy and curriculum knowledge alone and restricted teacher agency, as they worked to rank and categorise individual pupils' performances to meet teachers' professional obligations to track and report individuals' progress on the narrow assessment criteria available to them. Classroom practice evidenced the tacit acceptance of the routine deployment of a TA as the response to pupils with additional needs attending mainstream lessons, written as the school's generic response to SEND within the SEND policy. The established adult roles whereby teachers were accountable to the school's curriculum and assessment policies, resulted in teachers not adapting their approaches to include their own experiences of autism or the information within the SEND register in their strategic planning and lesson activities.

Teacher and TA tacit acceptance of the responsibilities accorded each of their roles and ensuing repertoires of practice is a concern that has been identified by Humphrey and Symes (2011) and Symes and Humphrey (2012) became apparent in my study. TA deployment focused on the production of evidence of curriculum knowledge resulted in Joe remaining isolated in his classroom relationships and with less access to teacher subject knowledge and pedagogical explanations than his peers. The assumption teachers made of TAs' ability and confidence to adjust activity for Joe did not align with the expectations of the SEND policy that teachers use differentiated approaches to support the needs of SEND pupils based on information from the digital SEND register. The interactional perspective of the conceptualisation of learning as individual and measurable by performance outcome, such as the completion of written work as evidence of knowledge acquisition, thus placed Joe at a fundamental disadvantage in comparison to his peers, when the only adjustment made for him was the support of a TA as a scribe and interpreter.

It was apparent that the consequence of assumed ability, participation, and engagement in academic activity on what was understood about Joe's social, emotional and interactional behaviours under an interactional worldview was problematic in how Joe was responded to. For autistic individuals, who have already been identified as experiencing greater isolation, vulnerability and underperformance (Hay and Winn, 2012), classroom practices that are more sensitive to learning as a relational process, rather than focused on outcome alone, appear more responsive in capturing the unique abilities of learners.

The influence of context, activity, and experience on an individual's development of knowledge, skills and membership offered within the sociocultural paradigm of my study, has provided the opportunity to consider the influence of the interactional worldview on Joe, his teachers', and TAs' experiences of their school context. Joe's individual

experiences, and his teachers' and TAs' individual and collective experiences presented in my study, have highlighted their shared expectations of different classroom roles and the purpose of lesson activity. The assumptions and conceptualisations of learning reflected in school policies, routines and classroom practices were underpinned by the cognitive-developmental paradigm. This separates a person from their environment to focus on the psychological mechanisms influencing abilities (Rogoff, 2016). However, Joe's experiences, along with the evidence within Conn's (2014a; 2014b) studies, has highlighted that a diagnosis of autism must not be assumed to prevent an individual's development of social understanding; Joe's social understanding of roles and activity was apparent in his responses within my study. This made the transactional nature of learning apparent, and his ability to understand and respond to information clear. However, within the context of Joe's five lessons, it was evident that the opportunities to transform his membership were being influenced by the interactional worldview, where inherent values and responses accorded literacy and the cognitive-developmental paradigm dominated classroom activity and relationships. Thus, Joe was understood and responded to on a narrow criterion and what was accepted as evidence of ability within a particular paradigm.

A transactional perspective offered by Rogoff (2016) reframes learning to make the way different people participate a community concern that promotes the negotiation of differences between people as being necessary to achieve outcomes. In contrast, within the interactional organisation of Joe's lessons, no alternative means were made available to him in how he presented his knowledge. The accepted values of the interactional perspective, which were embedded within wider school policies and routines, did not consider or allow Joe's abilities to be reframed nor adjustments made for his interaction, communication, and information processing differences within classroom activity.

My study has suggested that transforming how a person or collective of people participate, by investigating and reflecting on different aspects of influence, such as the institutional, offers an alternative viewpoint of understanding and responding to the

diverse experiences of membership within a setting such as a classroom. The perspective of autism that Beadle (2018) points out as an 'alternative way of thinking', along with the anecdotal reports of individuals with autism (see literature review), and the regard given to interpreting an autistic pupil's behaviour using an autism lens (Conn, 2014a), offer a lived experience of being autistic that is not captured in diagnostic tools or standardised assessments in schools. A paradigmatic shift in educational practice offered by Rogoff (2016) allows what is understood about others' strengths and challenges to be developed in relationships. This is the foundation for adjusting information, guiding how each person contributes and participates, and encompasses reflections on the responsibilities and contributions made. Addressing the paradigmatic tensions in differing worldviews appears a fundamental area for further investigation into reframing inclusion in education and allowing greater opportunities for leaders and teachers to respond to the individual needs of the different learners in their classes and communities. Further investigation into the experiences of valued and supportive relationships for autistic pupils within different school settings, for example specialist units attached to mainstream, and how these are organised in classrooms, could offer senior managers, teachers and TAs alternative options to staff deployment and classroom roles, which my study has suggested is necessary to alter the interactional and communication experiences of social and curriculum participation in shared community endeavours for an autistic individual.

References

- Acker, L., Knight, M. and Knott, F. (2018) “Are they just gonna reject me?” Male adolescents with autism making sense of anxiety: An Interpretative Phenomenological Analysis’, *Research in Autism Spectrum Disorders*. Elsevier Ltd, 56, pp. 9–20. doi: 10.1016/j.rasd.2018.07.005.
- Allan, J. and Youdell, D. (2017) ‘Ghostings, materialisations and flows in Britain’s special educational needs and disability assemblage’, *Discourse*. Routledge, 38(1), pp. 70–82. doi: 10.1080/01596306.2015.1104853.
- Altan, S. and Lane, J. F. (2018) ‘Teachers’ narratives: A source for exploring the influences of teachers’ significant life experiences on their dispositions and teaching practices’, *Teaching and Teacher Education*. Elsevier Ltd, 74, pp. 238–248. doi: 10.1016/j.tate.2018.05.012.
- American Psychiatric Association (2013) *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*. American Psychiatric Publishing.
- Ashburner, J., Ziviani, J. and Rodger, S. (2010) ‘Surviving in the mainstream: Capacity of children with autism spectrum disorders to perform academically and regulate their emotions and behaviour at school’, *Research in Autism Spectrum Disorders*, 4(1), pp. 18–27. doi: 10.1016/j.rasd.2009.07.002.
- Attwood, T. (1998) *Asperger’s syndrome*. London: Jessica Kingsley.
- Beadle, D. (2018) Unpublished Interview conducted by The Autism Education Trust. 2018
- Biesta, G. Priestley, M. & Robinson, S. (2017). Talking about education. *Journal of Curriculum Studies*, 49(1), 38-54.
- Birch, J. (2006) *Insight into an Autism Spectrum Disorder*. Kairaranga, v7 n2 p16-19.
- Bodrova, E., Leong, D. J. and Akhutina, T. V. (2011) ‘When everything new is well-forgotten old: Vygotsky/Luria insights in the development of executive functions.’, *New*

directions for child and adolescent development, 2011(133), pp. 11–28. doi: 10.1002/cd.301.

Braun, A. Maguire, M. & Ball, S. (2010). Policy enactments in the UK secondary school: Examining policy, practice and school positioning. *Journal of Education Policy*, 25(4), 547-560.

British Educational Research Association (2011) *Ethical Guidelines for Educational Research*. [Online] Available at: <https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2011> (Accessed 30 September 2015)

Buchanan, R. (2015) 'Teacher identity and agency in an era of accountability', *Teachers and Teaching: Theory and Practice*. Routledge, 21(6), pp. 700–719. doi: 10.1080/13540602.2015.1044329.

Carrington, S. (1998) Inclusion needs a different school culture. *International Journal of Inclusive Education Volume 3, Issue 3*, 1999

Carrington, S. and Elkins, J. (2002) 'Comparison of a traditional and an inclusive secondary school culture', *International Journal of Inclusive Education*, 6(1), pp. 1–16. doi: 10.1080/13603110110061754.

Carter, E. Common, E. Sreckovic, M. Huber, H. Bottema- Beutel, K. Redding Gustafson, J. Dykstra, J. and Hume, K. (2014) 'Promoting Social Competence and Peer Relationships for Adolescents With Autism Spectrum Disorders', *Remedial and Special Education*, 35(2), pp. 91–101. doi: 10.1177/0741932513514618.

Children and Families Act 2014. Available at: <http://www.legislation.gov.uk/ukpga/2014/6/contents/enacted> (Accessed: 17 September 2017)

Cohen, L. Manion, L. and Morrison, K. (2011) *Research Methods in Education* (Seventh Edition). Routledge.

Conn, C. (2014a) 'Investigating the social engagement of children with autism in mainstream schools for the purpose of identifying learning targets', *Journal of Research*

in *Special Educational Needs*. Blackwell Publishing Ltd, 14(3), pp. 153–159. doi: 10.1111/1471-3802.12010.

Conn, C. (2014b) *Autism and the social world of childhood: A sociocultural perspective on theory and practice*, *Autism and the Social World of Childhood: A Sociocultural Perspective on Theory and Practice*. doi: 10.4324/9781315795454.

Constable, P. Ring, M. Gaigg. and Bowler, D. (2018) 'Problem-solving styles in autism spectrum disorder and the development of higher cognitive functions', *Autism*. SAGE Publications Ltd, 22(5), pp. 597–608. doi: 10.1177/1362361317691044.

Department for Education (2014) 'The Equality Act 2010 and schools', *London: DfE*. doi: 10.1016/j.neuropsychologia.2008.07.016.

Department for Education and Department of Health (2015) *SEND code of practice: 0 to 25 years* - GOV.UK, DofE.

Department for Education (2015) *School Inspection Handbook*. Office for Standards in Education.

De Jaegher H (2013) Embodiment and sense-making in autism. *Front. Integr. Neurosci.* 7:15. doi: 10.3389/fnint.2013.00015. Accessed: 12 January 2021.

Dicker, L. (2018) Unpublished Interview conducted by The Autism Education Trust. 2018.

Edgar, D. W. (2012) 'Learning theories and historical events affecting instructional design in education: Recitation literacy toward extraction literacy practices', *SAGE Open*, 2(4), pp. 1–9. doi: 10.1177/2158244012462707.

Emam, M. M. and Farrell, P. (2009) 'Tensions experienced by teachers and their views of support for pupils with autism spectrum disorders in mainstream schools', *European Journal of Special Needs Education*, 24(4), pp. 407–422. doi: 10.1080/08856250903223070.

Equality Act 2010. Available at: <http://www.legislation.gov.uk/ukpga/2010/15/contents> (Accessed: 17 September 2017)

Farnsworth, V. Kleanthous, I. and Wenger-Trayner, E. (2016) Communities of Practice as a Social Theory of Learning: a conversation with Etienne Wenger. *British Journal of Education Studies*, 64:2, 139-160. DOI: 10.1080/00071005.2015.1133799

Frederickson, N., Jones, A. P. and Lang, J. (2010) 'Inclusive provision options for pupils on the autistic spectrum', *Journal of Research in Special Educational Needs*, 10(2), pp. 63–73. doi: 10.1111/j.1471-3802.2010.01145. x.

Gadd, D. (2004) 'Making sense of interviewee-interviewer dynamics in narratives about violence in intimate relationships', *International Journal of Social Research Methodology: Theory and Practice*. doi: 10.1080/1364557092000055077.

Gage, N. L. (1989) 'The Paradigm Wars and Their Aftermath: A "Historical" Sketch of Research on Teaching since 1989', *Educational Researcher*. Thousand Oaks, CA: American Educational Research Association, 18(7), pp. 4–10. doi: 10.3102/0013189X018007004.

Grenier, M. (2010) 'Moving to inclusion: A socio-cultural analysis of practice', *International Journal of Inclusive Education*, pp. 387–400. doi: 10.1080/13603110802504598.

Guldborg, K. (2017). Evidence-based practice in autism educational research: Can we bridge the research and practice gap? *Oxford Review of Education*, 43(2), 149-161.

Guldborg, K. Achtypi, A. D'Alonzo, L. Laskaridou, K. Milton, D. Molteni, P. & Wood, R. (2019) Using the value creation framework to capture knowledge co-creation and pathways to impact in a transnational community of practice in autism education, *International Journal of Research & Method in Education*, DOI: [10.1080/1743727X.2019.1706466](https://doi.org/10.1080/1743727X.2019.1706466)

Harris, R. and Graham, S. (2019) 'Engaging with curriculum reform: insights from English history teachers' willingness to support curriculum change', *Journal of Curriculum Studies*. Taylor and Francis Ltd., 51(1), pp. 43–61. doi: 10.1080/00220272.2018.1513570.

Hay, I. and Winn, S. (2012) *Title: Secondary Students with HFAS High Functioning Autism Spectrum Disorder: A challenge to secondary school educators and the students with the condition.*

Heilker, P., & Yergeau, M. (2011). Autism and rhetoric. *College English*, 73(5), 485-497. Retrieved from <http://libezproxy.open.ac.uk/login?url=https://www-proquest-com.libezproxy.open.ac.uk/scholarly-journals/autism-rhetoric/docview/864563791/se-2?accountid=14697>

Human Research Ethics Committee (2015) *Ethics Principles for Research Involving Human Participants*. Open University. [Online]Available at: <http://www.open.ac.uk/research/ethics/sites/www.open.ac.uk.research.ethics/files/files/cms/web-content/Ethics-Principles-for-Research-involving-Human-Participants.pdf> (Accessed 30 September 2015)

Humphreys, P. (2017). Neoliberal Schooling, Dehumanisation and an Education. In T. Rudd & I. F. Goodson (Eds.), *Negotiating Neoliberalism: Developing Alternative Educational Visions* (pp. 41-57). Rotterdam: SensePublishers.

Humphrey, N. and Symes, W. (2011) 'Peer interaction patterns among adolescents with autistic spectrum disorders (ASDs) in mainstream school settings', *Autism*, 15(4), pp. 397–419. doi: 10.1177/1362361310387804.

Jackson, L. (2003) *Geeks, Freaks and Asperger's Syndrome*. Jessica Kingsley

Jenlink, P. (2014) *Teacher Identity and the Struggle for Recognition: Meeting the Challenges of a Diverse Society*. Lanham, MD: Rowman and Littlefield Education. (2017). 270 pp. (ISBN 978-1607095750)', *McGill Journal of Education*. doi: 10.7202/1040818ar.

Jordan, R. (2008) 'Autistic spectrum disorders: A challenge and a model for inclusion in education', *British Journal of Special Education*, 35(1), pp. 11–15. doi: 10.1111/j.1467-8578.2008.00364. x.

Khader, F. R. (2012) *Teachers' Pedagogical Beliefs and Actual Classroom Practices in Social Studies Instruction*, *American International Journal of Contemporary Research*.

Korkiakangas, T. & Rae. (2013). Gearing up to a New Activity: How Teachers use Object Adjustments ^[SEP]to Manage the Attention of Children with Autism. *Augmentative and Alternative Communication*, 29(1), 83-103.

Lave. J and Wenger, E. (1991) *Situated learning: legitimate peripheral participation*. Cambridge. Cambridge University Press.

Lourenço, O. (2012) 'Piaget and Vygotsky: Many resemblances, and a crucial difference', *New Ideas in Psychology*, 30(3), pp. 281–295. doi: 10.1016/j.newideapsych.2011.12.006.

McGuire, A. (2013) Buying Time: the S/Pace of Advocacy and the Cultural Production of Autism. *Canadian journal of disability studies*, 2013, Vol.2 (3), p.98

Mercer, N. & Howe, C. (2012). Explaining the dialogic processes of teaching and learning: The value and potential of sociocultural theory. *Learning, Culture and Social Interaction*, 1(1), 12-21.

Milton, D. E. (2012). On the ontological status of autism: The 'double empathy problem'. *Disability & Society*, 27(6), 883-887.

Milton, D. E. (2014). Autistic expertise: A critical reflection on the production of knowledge in autism studies. *Autism : The International Journal of Research and Practice*, 18(7), 794-802

Morrier, M., Ousley, O. Caceres-Gamundi, G.A. , Segall, M. Cubells, J. Young , L. Andari, E. (2017). Brief Report: Relationship Between ADOS-2, Module 4 Calibrated Severity Scores (CSS) and Social and Non-Social Standardized Assessment Measures in Adult Males with Autism Spectrum Disorder (ASD). *J Autism Dev Disorders* **47**, 4018–4024 <https://doi.org/10.1007/s10803-017-3293-z>

Mottron, L. (2017). Should we change targets and methods of early intervention in autism, in favor of a strengths-based education? *European Child & Adolescent Psychiatry*, 26(7), 815-825.

Murray, F. (2020) Why 'nothing about us without us' should be an Autism policy principle. *Sourcenews,scot*. Accessed 16th February 2021

Ochs, E. Solomon, O. & Sterponi, L. (2005). Limitations and transformations of habitus in Child-Directed Communication. *Discourse Studies*, 7(4/5), 547-583.

O'Dell, L. Bertilsdotter Rosqvist, H. Ortega, F. Brownlow, C. & Orsini, M. (2016) Critical autism studies: exploring epistemic dialogues and intersections, challenging dominant understandings of autism, *Disability & Society*, 31:2, 166-179, DOI: [10.1080/09687599.2016.1164026](https://doi.org/10.1080/09687599.2016.1164026)

Osberg, D. & Biesta, G. (2010). The end/s of education: Complexity and the conundrum of the inclusive educational curriculum. *International Journal of Inclusive Education*, 14(6), 593-607.

Patton, M. (1980) *Qualitative Evaluation and Research Methods*. (Second Edition). London: Sage.

Piaget, J. (1972) 'Intellectual evolution from adolescence to adulthood', *Human Development*. doi: 10.1159/000271225.

Pratt, N. (2016). Neoliberalism and the (internal) marketisation of primary school assessment in England. *British Educational Research Journal*, 42. doi:10.1002/berj.3233

Radford, J. Bosanquet, P. Webster, R. and Blatchford, P, (2013) 'Fostering learner independence through heuristic scaffolding: A valuable role for teaching assistants', *International Journal of Educational Research*, 63, pp. 116–126. doi: 10.1016/j.ijer.2013.02.010.

Robledo, J., & Donnellan, A. M. (2016). Supportive Relationships in Autism Spectrum Disorder: Perspectives of Individuals with ASD and Supporters. *Behavioral sciences (Basel, Switzerland)*, 6(4), 23. <https://doi.org/10.3390/bs6040023>

Rogoff, B. (2003). *The cultural nature of human development*. New York: Oxford University Press.

Rogoff, B. (1995) *Observing sociocultural activity on three planes: participatory appropriation, guided participation and apprenticeship*. In. J. V. Wertsch, P. del Rio, & A.

Alvarez (eds.) Sociocultural studies of mind (p. 139-164). New York, NY Cambridge University Press.

Rogoff, B. (2016) Culture and participation: a paradigm shift. *Current opinion in psychology*, 8, pp182-189. Available at www.sciencedirect.com. Accessed 20 August 2020

Rogoff, B. Matusov, E. White, C. (1996) Models of teaching and learning: participation in a community of learners. Chp 18. *Handbook of education and human development*. Oxford, UK. Blackwell.

Rogoff, B. Moore, L. Najafi, B. Dexter, A. Correa-Chavez, M. Solis, J. (2005) *Children's Development of Cultural Repertoires through Participation in Everyday Routines and Practices*. In J. Grusec and P. Hastings (eds). *Handbook of Socialisation*. NY: Guilford

Saggers, B. (2015). Student perceptions: Improving the educational experiences of high school students on the autism spectrum. *Improving Schools*, 18(1), 35-45.

Sainsbury, C. (2000) *Martian in the Playground: Understanding the Schoolchild with Asperger's Syndrome*. Lucky Duck Books.

Schuell, T. (1986) Cognitive Conceptions of Learning, *Review of Educational Research*, 56(4), pp.411-436. Doi:10.3102/00346543056004411

Spielman, A. (2017) HMCI's commentary: recent primary and secondary curriculum research: October 2017. Available at: <https://www.gov.uk/government/speeches/hmcis-commentary-october-2017> Accessed: 15 January 2018

Stribling, P. Rae, J. and Dickerson, P. (2006) Research Report Two forms of spoken repetition in a girl with autism *Centre for Research into Cognition, Emotion & Interaction, School of Human & Life Sciences*, Roehampton University, Whitelands College, London, UK (Received 4 January 2006; accepted 28 July 2006). Accessed 15th February 2012

Stribling, P. Rae, J. and Dickerson, P. Using conversation analysis to explore the recurrence of a topic in the talk of a boy with an autism spectrum disorder. Roehampton University, London, UK (Received 1 September 2007; accepted 15 March 2008).

Accessed 15th February 2012

Symes, W. and Humphrey, N. (2012) 'Including pupils with autistic spectrum disorders in the classroom: The role of teaching assistants', *European Journal of Special Needs Education*, 27(4), pp. 517–532. doi: 10.1080/08856257.2012.726019.

Timimi, S. (2011). Autism is not a scientifically valid or clinically useful diagnosis. *BMJ*, 343(7820), 384.

Vygotsky L. (1978) *Mind in Society –The Development of Higher Psychological Processes*. Cole, M. John-Steiner, V. Scribner, S. Souberman, E (Eds) Harvard University Press

Watson, S. L. (2011) 'Somebody's gotta fight for them: A disadvantaged and marginalized alternative school's learner-centered culture of learning', *Urban Education*, 46(6), pp. 1496–1525. doi: 10.1177/0042085911413148.

Wenger-Trayner, E. Fenton-O'Creevy, M. Kubiak, C. Hutchinson, S. & Wenger-Trayner, B. (2014). *Learning in Landscapes of Practice: Boundaries, identity, and knowledgeability in practice-based learning*. Routledge.

Williams, S. B. (2010) 'Student with Asperger's Overcomes Obstacles: Devon's Journey to Independence', *Exceptional Parent*.

Wood, R. (2019). Autism, intense interests and support in school: From wasted efforts to shared understandings. *Educational Review (Birmingham)*, 1-21.

Appendices

Appendix 1 – Consent/opt in letters and information for gaining Informed Consent for Participation

Doctoral Research Study: Information for Teacher A/TA

This page provides information about the research project called 'Facilitating participation in whole school life for UK mainstream secondary school students with Asperger's Syndrome through socio-cultural interactions, understandings and actions.' This study is being undertaken and will be published as a Doctoral Thesis for the achievement of a Doctoral in Education qualification through The Open University, under the supervision of Doctor Felicity Fletcher-Campbell.

The aim of this research is to find out about the understandings of, and opportunities for, pupils with Asperger's Syndrome to participate in school life through discourse, actions and the opportunities these provide.

Overview of the Study

The study will result in the following **outcomes**:

- Field notes on observations of pupil and teacher activity within the classroom, which may be published, anonymised, in a range of formats (e.g. on paper, as a pdf or web page).
- Analysis of interview data from teachers and pupils on the understandings of experiences and participation within the classroom.
- A report of the study addressing the aim of the research study (noted above) in beginning to address how participation is facilitated for pupils with Asperger's Syndrome, as well as informing the design of the next stage of the research. These may be in a range of formats, including web pages and other digital formats.

The study will involve a researcher spending three days in the school. The researcher works with a school facilitator before visiting the school to arrange the schedule for the two visits and ensure that participants are happy to take part.

Data collection specifically involves:

- **The school facilitator** helps coordinate the day and organises for the researcher to shadow a pupil with Asperger's Syndrome and two pupils with whom he/she feels are significant to him/her and/or who you identify they usually interact with during your lesson.
- **Teacher/TA** is observed teaching/supporting and takes part in an interview/discussion with the researcher.
- **3 pupils in your class** are observed (at the same time as you) and take part in an interview/discussion.

Your specific involvement

I am specifically asking you to:

1. Take part in an interview/discussion about your teaching
2. Enable myself to observe you teaching 'a lesson' in which I will be observing you and the three pupils. This lesson should be a routine one, with you not being expected to do anything other than your normal teaching. Take part in a short debriefing discussion/interview after the observation

Ethics

The study complies with the British Educational Research Association's guidelines for ethical research (which are available from <https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2011>) and have been approved by the Human Research Ethics Committees at The Open University HREC 2718/Willis

I recognise and value the experience and expertise that children and teachers bring to research within the educational setting and see my role as being to help them to make explicit their insights, and to document them. I will provide respondents the opportunity to comment on my initial data analysis to ensure that I have understood the data.

Where pupils will be observed and interviewed, permission for their involvement will be sought from the pupil and their parent(s)/carer(s).

No individuals will be identified by name within any report of the Study (or other related outputs).

The name of the school will NOT be included in any reporting of the outcomes of the Study.

Any individual has the right to withdraw from taking part in the study at any point, and can ask for their data not to be included in the data analysis up until such a time as the main data analysis has already begun (30th June 2018).

If you would like further information about any aspect of the project or would like to withdraw from it then contact:

- **Angela Willis (The researcher)** by phone on, by emailing or through the school.
- **Dr Felicity Fletcher- Campbell** at on by writing to Dr Felicity Fletcher-Campbell,

Doctoral Research Study Consent Form

Teacher A /TA

1. I consent to participate in this research and agree that the researcher may use the data collected as described in 'Facilitating participation in whole school life for UK mainstream secondary school students with Asperger's Syndrome through socio-cultural interactions, understandings and actions.' information for Teacher A.

2. I acknowledge that:

(a) I have been provided with a written statement in plain language for my reference that explains what taking part in the project will involve ('Facilitating participation for pupils with Asperger's Syndrome within the mainstream secondary school setting' information for Teacher A)

- (b) I have been informed that I am free to withdraw myself from the project at any time without explanation or prejudice and to withdraw any related unprocessed data by 30th June 2018 by contacting the researcher or Doctor Felicity Fletcher Campbell and their contact details have been given to me
- (c) The project is for the purpose of research
- (d) I have been informed that the confidentiality of the information collected from the school will be safeguarded subject to any legal requirements
- (e) The data generated will be stored securely. It will be destroyed after five years from 30th June 2018.
- (f) All data will be anonymised in any publications arising from the research
- (g) I have been informed that a summary copy of the research findings will be forwarded to me, should I request this.

	Yes	No
I consent to the interviews being audio recorded	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No
I wish to receive a copy of the summary project report on research findings	<input type="checkbox"/>	<input type="checkbox"/>

Signature

Date

Doctoral Research Year 2 Study: Information for Parent/ Guardian A

This page provides information about a research project called 'Facilitating participation in whole school life for UK mainstream secondary school students with Asperger's Syndrome through socio-cultural interactions, understandings and actions.' This study is being undertaken and will

be published as a Doctoral Thesis for the achievement of a Doctoral in Education qualification through The Open University, under the supervision of Doctor Felicity Fletcher-Campbell.

The aim of this research is to find out about the understandings of, and opportunities for, pupils with Asperger's Syndrome to participate in school life through discourse, actions and the opportunities these provide.

Overview of the Study

The study will result in the following **outcomes**:

- Field notes on observations of pupil and teacher activity within the classroom, which may be published, anonymised, in a range of formats (e.g. on paper, as a pdf or web page).
- Analysis of interview data from teachers and pupils on the understandings of experiences and participation within the classroom.
- A report of the study (published as a Doctoral Thesis) addressing the aim of the research study (noted above) in beginning to address how participation is facilitated for pupils with Asperger's Syndrome. The report may be in a range of formats, including web pages and other digital formats.

The study will involve a researcher spending three days in the school (one day per term over three terms). The researcher works with a school facilitator before visiting the school to arrange the schedule for the visits and to ensure that participants are happy to take part.

Data collection specifically involves:

- **The school facilitator** helps coordinate the day and organises for the researcher to shadow a pupil with Asperger's Syndrome and two pupils with whom are significant to him/her and/or who he/she interacts with during each lesson.
- **Teacher A** is observed teaching and takes part in an interview with the researcher.
- **3 pupils (this will include your child) in Teacher A's class** are observed (at the same time as Teacher A) and will be given the option to take part in a group or individual

interview/discussion with me about the lesson. Pupils will be able to have a familiar member of staff who they feel comfortable with, present if they so wish.

Your specific involvement

I am specifically asking you to consent to your child to opt into this research. This will specifically involve them:

1. To be in classes where I will be observing lessons.
2. Take part in a small group or individual interview discussion about their experience in their lessons.

You have the right to withdraw from your child taking part in the study at any point and can ask for the information I have collected from them to not be included in my work. You would need to do this by 30th June 2018.

Ethics

The study complies with the British Educational Research Association's guidelines for ethical research (which are available from <https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2011>) and have been approved by the Human Research Ethics Committees at The Open University HREC 2718/Willis

I recognise and value the experience and expertise that children and teachers bring to research within the educational setting and see my role as being to help them to make explicit their insights, and to document them. I will provide respondents the opportunity to comment on my initial data analysis to ensure that I have understood the data.

Where pupils will be observed and interviewed, permission for their involvement will be sought from the pupil and their parent(s)/carer(s).

No individuals will be identified by name within any report of the study (or other related outputs).

The name of the school will NOT be included in any reporting of the outcomes of the study.

All data and information will be anonymised.

Any individual has the right to withdraw from taking part in the study at any point, and can ask for their data not to be included in the data analysis up until such a time as the main data analysis has already begun (30th June 2018).

If you would like further information about any aspect of the project or would like to withdraw from it then contact:

- **Angela Willis (The researcher)** by phone on, by emailing or through the school.
- **Dr Felicity Fletcher- Campbell** at on by writing to Dr Felicity Fletcher-Campbell,

Doctoral Research Study Opt in/Consent Form

Parent/guardian A

1. I am happy for my child to take part in this research where they will be observed in their usual lessons, and have a discussion with Angela Willis.
2. I am happy for Angela Willis to use the information collected as described in 'Facilitating participation in whole school life for UK mainstream secondary school

- students with Asperger's Syndrome through socio-cultural interactions, understandings and actions.' information for Parent/guardian A.
3. I have been given an information sheet that explains what my child will need to do. I have been given the opportunity to ask questions and understand that:
- (a) I know that I am free to withdraw my child from the project at any time, and that any information they have given will be destroyed. I can withdraw my child by 30th June 2018 through contacting Mr. Jones, or Angela Willis or Doctor Felicity Fletcher-Campbell and their contact details have been given to me
 - (b) The project is for the purpose of research
 - (c) I understand that neither my child, school staff nor the school will be identified in any publications arising from the research.
 - (d) The information that my child gives is confidential and will be safeguarded subject to any legal requirements
 - (e) The information from this study will be stored securely. It will be destroyed after five years from 30th June 2018
 - (f) I have been informed that a summary copy of the research findings will be forwarded to me, should I request this.

	Yes	No
I am happy to have the discussion interviews being audio recorded	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No
I am happy for my child to be observed in their lessons	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No
I happy for my child to take part in discussion interviews with Angela Willis	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No
I wish to receive a copy of the summary project report on research findings	<input type="checkbox"/>	<input type="checkbox"/>

Signature

Date

Doctoral Research Study: Information for Pupil A

This page provides information about a research project called 'Facilitating participation in whole school life for UK mainstream secondary school students with Asperger's Syndrome through socio-cultural interactions, understandings and actions.' This study is being undertaken and will be published as a Doctoral Thesis for the achievement of a Doctoral in Education qualification through The Open University, under the supervision of Doctor Felicity Fletcher-Campbell.

The aim of this research: I would like to find out about your experience in your school and your relationships with staff and other pupils. I would like to know how easy or difficult it is for you, as a pupil in your school.

Overview of the Study

This study will result in the following **outcomes**:

- Notes on how you and your teachers all behave towards each other in your lessons. The notes I make may be published. This could be on paper, or on pdf, or such like. You, and your school will not be mentioned by name in any of these.
- The audio recording, I make of our discussion about your experiences will have excerpts (bits of it/quotes) written out. I will use this to see if I can find patterns in what you are saying to explain your experiences.
- A report of the study (known as a Doctoral Thesis) will be written in digital format. The information in this report will give your explanations, and my understandings of your experiences and how well they are helping you in being part of school life.

The study will involve me, as a researcher spending two days in the school. I will be working with your SENCo to arrange a schedule for my three visits, and to make sure that you are happy to take part. When I visit, I will be collecting information (data) that specifically involves:

- Your SENCo will organise the day so that I can watch your lessons and have some time to speak with you. An opportunity will be arranged for you, and two other pupils whom you sit by to talk with me about your lessons. However if you feel happier to speak to me without the two other pupils, you can speak to me on your own, and can have someone you feel comfortable with in the room too. We will be having this talk in a room within your school.
- I will also be watching your teachers in the lessons.

Your specific involvement

I am specifically asking you to:

1. To be in classes where I will be observing lessons.
2. Take part in an interview discussion about your experience in your lessons. You can do this as an individual or with two other pupils who you sit by/ with someone you feel comfortable to talk with.

You have the right to withdraw from taking part in the study at any point and can ask for the information I have collected from you to not be included in my work. You would need to do this by 30th June 2018.

Further information to share with parent(s)/carer(s):

Ethics

The study complies with the British Educational Research Association's guidelines for ethical research (which are available from <https://www.bera.ac.uk/researchers->

[resources/publications/ethical-guidelines-for-educational-research-2011](#)) and have been approved by the Human Research Ethics Committees at The Open University HREC 2718/Willis.

Children and teachers have experiences which I recognise as valuable for research within the educational setting. As a researcher I would like to find out about your child's experiences and record this information accurately. I would value your child's contribution to my understanding of this. I would be doing this by watching some of their lessons, and by discussing these with them. I am seeking your permission, and that of your parent(s)/carer(s) to be able to do this.

No individuals will be identified by name within any report of the Study (or other related outputs).

The name of the school will NOT be included in any reporting of the outcomes of the Study.

All information will be anonymised.

If you would like further information about any aspect of the study or would like to withdraw from it then contact:

- **Angela Willis (The researcher)** by phone on, by emailing or through the school.
- **Dr Felicity Fletcher- Campbell** at on or by writing to Dr Felicity Fletcher-Campbell

Doctoral Research Study Opt in/ Consent Form

Pupil A

4. I am happy to take part in this research where I will be observed in my usual lessons, and have a discussion with Angela Willis.
5. I am happy for Angela Willis to use the information collected as described in 'Facilitating participation in whole school life for UK mainstream secondary school

students with Asperger's Syndrome through socio-cultural interactions, understandings and actions.' information for Teacher A.

6. I have spoken to Mr. Jones and Angela Willis, who have given me an information sheet that explains what I will need to do. I have been given the opportunity to ask questions and understand that:

(g) I know that I am free to withdraw myself from the project at any time, and that any information I have given will be destroyed. I can withdraw by 30th June 2018 through contacting Mr. Jones, or Angela Willis or Doctor Felicity Fletcher-Campbell and their contact details have been given to me.

(h) The project is for the purpose of research

(i) I have spoken with Mr. Jones and Angela Willis and understand that neither myself/my child, school staff or my school will be identified in any publications arising from the research.

(j) The information that I give is confidential and will be safeguarded subject to any legal requirements

(k) The information from this study will be stored securely and will be destroyed after five years

(l) I have been informed that a summary copy of the research findings will be forwarded to me, should I request this.

	Yes	No
I am happy to have the discussion interviews being audio recorded	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No
I am happy to be observed in my lessons	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No
I happy to take part in discussion interviews with Angela Willis	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No
I wish to receive a copy of the summary project report on research findings	<input type="checkbox"/>	<input type="checkbox"/>

Signature

Date

Dear Mrs Bass

I am contacting you regarding my Doctoral Research in Education. I am currently in my first year of study at the Open University and am looking to undertake an exploratory small-scale study towards the end of November. I currently work as a Specialist Advisory Teacher for the Local Authority and have enjoyed a positive relationship with the pupils I have worked with, and the staff involved. The focus of my research is how pupils with Asperger's Syndrome, as an Autism Spectrum Condition, meet the challenges of mainstream secondary schooling. My research involves working within a mainstream school to observe and discuss with pupils and teaching staff how classroom experiences are perceived, and how understandings are generated and practised. To do this I would hope to review relevant policy documentation, observe a small group of three pupils across their school day on a couple of occasions, and speak both to staff, on a volunteer basis, about their experience, and to these pupils from the class. Given my research interest is on the experiences of pupils with Autism Spectrum Condition, key to my work would be the inclusion of a pupil with ASC in the pupil group. I would hope to accomplish all the work on two days.

I would value the opportunity to conduct this research within your school as I have found my relationships to be very positive, and your staff to be responsive and understanding of pupils. I would hope that the outcomes of the research (which I will extend later in my doctoral study) would help us to gain a better understanding of the way we can facilitate classroom participation for young people with Asperger's Syndrome in mainstream secondary settings. All data, participants and the school itself would be anonymised, with

the process and results being available to you. Ethical consent would be obtained from the Open University Ethics Committee prior to any research being undertaken.

I would be most grateful of your consideration of my request to work within your school for my research, and am happy to meet with, or phone you for further discussion should you wish.

Kind regards

Angela Willis

Appendix 2 – Application details outlining ethical considerations

HUMAN RESEARCH ETHICS COMMITTEE (HREC) PROFORMA

All OU research involving human participants or materials has to be assessed by the HREC. Where you have completed the [HREC Project Registration and Risk Checklist](#) and it has been determined that your research requires a full review, please complete and email this proforma to Research-REC-review@open.ac.uk. Attach any related documents for example: a consent form, information sheet, questionnaire, or publicity leaflet to ensure that the HREC Review Panel has everything they need to carry out a full review. If there are more than one group of participants,

relevant documents for each research group need to be included so as not to delay the review process.

If you have any queries about completing the proforma please check the Research Ethics website, in particular the FAQs - <http://www.open.ac.uk/research/ethics/human-research/faqs> which include sample documents and templates, or email Research-REC-review@open.ac.uk.

The deadline for applications is **every Thursday by 5.30pm**. Applications are then sent to the HREC Review Panel with a minimum response time of 21 working days. However, the process can take up to a month or longer, so when planning your research and ethics application, you need to build in sufficient time for the HREC review to avoid any delays to your research. Particularly, when you are planning overseas travel or interviews with participants as it is essential that no potential participants are approached until your research has been fully assessed by the HREC.

Please complete all the sections below – deleting the instructions in italics

Project identification and rationale

1. Title of project

A short, clear and descriptive project title.

Participation in mainstream school life for a pupil with Asperger's Syndrome:

A case study of a range of lessons identified by a pupil to be his/her 'best lessons'.

A summary of the main points of the research, written in terms easily understandable by a non-specialist and containing no complex technical terms (maximum 200 words).

This current study looks to extend the findings of my initial study of the experience of a young person (13 years) with a diagnosis of Asperger's Syndrome in a UK mainstream secondary school. Initial findings suggested teacher pedagogical belief (transmitted through classroom activity) shaped roles and relationships within the class. This emerged through data analysed using Rogoff's (2003) interpersonal plane. Teacher belief that learning styles (for example visual/auditory/kinaesthetic learning) differ among pupils, influenced the range of tasks organised to enable them to meet task academic outcomes. This did not recognise differences in social communication and interactions between them.

Intrapersonal data analysis (Rogoff, 2003) of the young person's actions and discourse identified him as being on the periphery of his class community, whereby his peers had established friendships between them because they shared activities outside of the classroom. These activities that shaped these friendships were not experienced by the young person. This excluded the young person with ASC from classroom activities unless peers were directed to involve him.

The differences between the way's pupils interacted and communicated emerged as an issue that was not negotiated or resolved between them because the structure of classroom activity limited the opportunity for roles and relationships available to transform participation. The focus on task outcome did not consider the social processes in partner work that were required to achieve task success. This reflects the theoretical position of this study that social experience is influenced by the ways cultural activity is organised (Rogoff, 2003).

Project personnel and collaborators
--

3.	Investigators
-----------	----------------------

Give names and institutional attachments of all persons involved in the collection and handling of individual data and name one person as Principal Investigator (PI). Research students should name themselves as PI and include a supervisor's electronic signature and/or comments below as evidence of supervisor support. Without this the application cannot be processed.

Principal Investigator/ Angela Willis
(or Research Student):

Other researcher(s):

Dr Felicity Fletcher-Campbell

For students only:

Please note that this application cannot be processed without your supervisor's signature and or supporting comments -

Postgraduate research degree: EdD

Supervisor (preferably primary):

Dr. Felicity Fletcher- Campbell

Email

Xf

Supervisor's electronic signature:

XFJ Fletcher-Campbell

Supervisor supporting comments:

I support the design of this proposed work and, on the evidence of Angela's execution of the initial study in the EdD programme, and her considerable professional expertise working with young people with ASC, I am confident that she will be sensitive to, and act appropriately with regard to, the ethical issues emerging as this project, involving a potentially vulnerable young person, progresses.

x

Research protocol

4.

Schedule

Time frame for the research and its data collection phase(s):

From: October 2017

To: July 2018

Earliest date participants will be contacted:

November 2017

5.

Methodology

Outline the method(s) that will be employed to collect and analyse data. Any relevant documents, such as interview or survey questions or a participant information sheet, should be sent with the completed proforma. If there is more than one group of participants, please provide separate consent forms and participant information sheets. If, for any reason, any of this is not possible please explain why.

I will visit the school for one day a term (academic year 2017-2018). Additionally, I will meet with the young person and Mr Jones (pseudonym), the Special Educational Needs Co-ordinator (SENCo), after receiving HREC approval. I will work alongside Mr Jones and the young person to identify his/her 'best day' of lessons and discuss his/her reasons for this. This is important to establish because the young person's perspective is central to my study. During my termly visits I will observe classroom activity in each timetabled lesson that the young person attends with his/her mainstream peers. I will talk to the young person, teacher (subject teacher/cover teacher/supply teacher) responsible for pupils in the classroom, teaching assistant (dependent on their being timetabled to the lesson), and a young person peer (identified by the pupil with ASC to be significant to him/her; identified by teacher as being significant to the young person with ASC). My research decision on peer participant considers what a young person and their teacher/s identify as 'significant' in peer relationships; provides the opportunity to explore this further in relation to teacher decisions and organisation of activity; offers the opportunity to counter potential challenges that may arise if one peer is absent/ does not wish to participate. In the instance of only one peer/the same peer participant being identified and being absent/not wishing to participate in the research, this will be noted within my study. This situation in itself provides the opportunity to explore the influence of peer relationships on the experience of activity for a young person with ASC because the study is designed to produce an authentic account of the way a young person with a diagnosis of ASC experiences their 'sense of belonging' within a mainstream secondary school.

My study seeks to explore the 'institutional' and interpersonal structures that shape individual teacher agency within the complex sociocultural setting of a mainstream secondary school and the way that these interact with individual staff 's understanding of autism as a medical diagnosis of difference in social interaction, communication, information and sensory processing, and what this means to a young person with ASC within their classroom settings. This emphasis on teacher position is important to the study and has emerged from my initial study findings that teacher belief shapes classroom activity and, consequently, influences the ways different pupils participate.

Teacher discourse and actions provide insight on sociocultural processes that structure activity within the classroom. This will be further investigated within my extended study to consider overall school 'structure' and the agency this gives to teachers within their classroom domain. This will be observed from the perspective of the researcher whose professional role involves delivering Autism Education Trust (AET) training at class teacher and senior leadership management levels.

Teacher position is recognised as the interpersonal plane (Rogoff, 2003) that bridges school structure and agency – for example congruency between classroom practice and school policy that influences pupil experience. 'Good' autism practice (AET, 2017) is informed by knowledge of what is demanded by legislation and policy (e.g. The Equality Act (2010), SEND Code of Practice (2015), Children and Families Act (2014)) and assessment and knowledge of staff skills and needs (competence and confidence) in classroom practice. I argue that teacher role is both crucial and influential to the relationships pupils experience from classroom practice. I am interested in the ways pupil agency to transform self-understanding within classroom relationships, is influenced through the opportunities provided in classroom practice (as a sociocultural activity) and the agency of teachers within the structure of the school. The situation is complex and multifaceted, and its investigation requires multiple data collection tools.

Researcher role:

Mercer (2007) identifies the dichotomy and discord of her experience as an 'insider' position in research. Mercer argues that it is unhelpful to define a distinction between the 'insider' researcher as a 'privileged member' to understand the inherent and unique characteristics of the 'researched'; and the 'outsider' researcher as objective through their position as a 'non-member'. She illuminates that an insider/outsider dichotomy fails to reflect the 'lived experience' of qualitative research. Thus, the either/ or, static position of a researcher is an abstract concept that does not reflect the dimensions of the reality of a sociocultural researcher. Mercer suggests that a dynamic researcher role is necessary to reflect varying dimensions in the research process- for example what is being researched, the participants

involved, where and when the research is taking place. Therefore, to take a static position is not conducive to the framework of sociocultural research.

Socioculturalism is the frame of my study. The data ('knowledge') and the analysis ('understanding') will thus be qualitative and reflect the dynamic interplay between people and their context. I have reflected on my position as a researcher and trainer working in an established social system (Flick, 1998). My professional knowledge (as an advisory teacher to the school) of the school's usual working practice (that involves classroom observations from outside visitors) integrates me (a researcher as an outside visitor) and my research tools (observations and interviews) with the daily working practice and experience of the participants. I have considered the influence of my presence within the classroom on the research process. This has informed my decision on my role within the research process. Thus, I acknowledge the issue identified by Flick (1998) of 'intrusion' within a social setting being met with defensiveness, and argue that the school's working practice and my professional experience enable my role to be flexible within the research process. Therefore, the ethnographic approach to my study, and the use of autoethnography within my research tools, necessitates my role to be flexible. Thus, I will play an active role as I document my observations on how a young person with ASC, significant peers, and teachers participate in opportunities within classroom activity. This will be necessary to develop my interview questions and to reflect on the data I generate. Therefore the way I engage in the research process will benefit from generating data rich in context and description, and analysis that reflects on the ways practice in the school is being shaped to influence the experience of a young person with ASC.

Collecting cultural data:

My study takes an ethnographic approach to capture both the lived experience of a young person with autism, and the structures and influences (e.g. teacher attitude/skills) within the sociocultural setting of his school that shape individual agency. This context-situated approach is undertaken from the epistemological position of the sociocultural perspective that meanings emerge from the context in which activity occurs. Thus, data collection tools must

be fit for their purpose to generate contextual data so that findings to research questions are high in relevance (Cohen, Manion and Morrison, 2011). This is important to the validity and credibility of my case study of school experience. This informed my choice of research tools within the research process.

Cultural data will be collected over a timeframe of three terms: Autumn 2017; Spring 2018; Summer 2018. This will be achieved through a one day visit per term. The purpose of my visits is to generate data that is rich in description and high in relevance to participants and to my professional working role.

Observations on the interactions and discourse that occur between the young person, peer/s and staff within classroom activity will be organised chronologically. This is necessary for establishing the authenticity of the classroom experience and will provide data on the roles and relationships within the classroom at the time activity occurs. Thus, the data is highly relevant to the setting and the participants within it. This data will provide a 'springboard' for discussion during interviews. Interviews are necessary to explore individual teacher and pupil experience and the ways they understand actions and discourse within shared activity (Conn, 2014). Open ended interview questions will thus be asked to generate rich verbal descriptions of experience (that reflect each participant's unique perspective) from the actions and activities observed within the classroom. A research diary will be completed and used as a reflective tool to the research process and to explore what is happening through the lens of a trainer whose focus is good autism practice.

Observations:

Observations are accepted as part of usual activity within the school (for example as experienced by staff and pupils when external agencies- such as education and health services work in partnership with staff and pupils in lesson settings). Therefore, I consider that there will be minimal intrusion and disruption to staff and pupils, because observations are part of their common school experience.

Cohen, Manion and Morrison, (2011) suggest that the process of observation should direct researchers to reflect on what is happening as it occurs within the research context. This enables research to be authentic. To capture activity as it occurs, I will collect data in chronological order over the course of each observed lesson. This will detail the actions and discourse of the teacher, peers and young person with ASC. It will be guided by my knowledge and experience of ASC (as the strengths and challenges within social interaction, communication, information and sensory processing), and my literature review of the features of social referencing in interactions within the transformation of participation framework (Rogoff, 2003). Thus, I will be interactive in the research process.

Observation notes will be typed onto my password protected laptop during the lesson. These will be typed up in full at home to enable my data to be an accurate description that is authentic to the context. The recorded information will also be put onto an encrypted memory stick that is stored in a lockable and coded safe, attached to the floor within my home. This safe is not accessible to any members of the household. Observations will generate data on the sociocultural processes within the structure of classroom activity on the roles and relationships between people and the ways they participate in activity. Thus, individual agency within the classroom can be analysed on three planes (institutional, interpersonal and intrapersonal- Rogoff, 2003).

Interviews:

I am intending to interview staff (teacher responsible for the class; teaching assistant where present in the classroom) a young person with ASC and peer/s (as identified as significant to the young person by themselves and by the teacher). My interviews will be structured around my observations of classroom activity. I will use these as the basis to explore the decisions teachers make when they plan and organise classroom activity (e.g. tasks and how these are organised; what they understand about pupil relationships); to explore the role of the teaching assistant/s (e.g. what they understand about their relationships with teacher/s and young people); and to explore the young person's experience of being in lessons (e.g. their perceptions of social interaction, communication, information and sensory processing demands within classroom activity). This provides the opportunity to generate data from multi-

perspectives that could reflect the complexity of mainstream classrooms. Crucial to this study is the 'sense of belonging' a young person with ASC perceives and experiences within classroom activity. Therefore, it is essential that great sensitivity and transparency is inherent within the research process to enable informed consent and the development of a trust relationship between the researcher and the volunteer participant.

I have reviewed theoretical differences between the different types of interviews that researchers use with the purpose and paradigm of my study (Cohen, Morrison and Manion, 2011). Capturing the 'lived experience' of the multiple realities of classroom experience, necessitates participant empowerment to enable them to describe their perspective. Thus, participant led interviews (as an unstructured interview approach – Cohen, Morrison and Manion, 2011) is the most appropriate interview style to take for my research purpose. This provides the opportunity within the interview process, to explore the participant's descriptions of their experience. It also allows the participant to give their understandings of and reasons for the actions and discourse experienced and observed during the lesson.

To generate more open responses and counter participant 'defensiveness' (Gadd, 2004) that will encourage participant confidence, trust, and enable empowerment through 'participant voice' (Cohen, Manion and Morrison, 2011), I will keep questions short (Kvale, 2007) and sequenced with specific ('what') questions (that demand less of the participant because they have the highest relevance to the context and the participant's experience within it). Thus 'what' questions will precede more generalised and abstract questions ('how'; 'why'; 'tell me about') to encourage rich, relevant descriptions during interviews.

With the consent of the interviewee, interviews will be audio recorded to enable me to reflect on what is said during analysis. I will need to consider the daily running of the school and address the practical aspects of when to interview participants. The timetabling of lessons (that run back to back and require teachers to release one class and organise the 'immediate' arrival of the next) is likely to be problematic because lessons are arranged on a 'running' clock (for example lesson one runs from 9am-10am; lesson two from 10am-11am). This does not consider that pupils (and sometimes staff) need to travel between teaching areas and cannot be in two places at one time. This is the lived reality in the school. Thus, reflection and

rich description would risk being limited from interviews undertaken during this timeframe. Therefore, volunteer participants will be asked to identify a time during the school day that would suit them so that interview data does not risk losing descriptions through memory effects. However, I will also give participants the option of another day. This is because I am also aware that within schools, the time available can be limited for both staff and pupils. I recognise that during the school day demands on staff (e.g. through directed time for duties- such as lunch duty/clubs/detentions), and the personal/social/emotional benefits for young people to have the opportunity to 'mix with peers' (Talib and Paulson, 2015) or to have 'time out' to themselves away from the demands and complexities of adolescent social interactions (Attwood, 1998) must be prioritised, and also reflect the lived experience of the mainstream setting. Therefore, whilst the research process would favour interviewing as soon after the event as possible (Cohen, Manion and Morrison, 2011), individuals' needs and 'institutional' structures that reflect lived realities are the interest of this study. Memory effects and perceptions of power relations (for example adult- child; trainer- teacher) are recognised as being problematic within qualitative research (Cohen, Manion and Morrison, 2011). This highlights the importance of developing and establishing trust and confidence within the researcher-participant relationship. Thus it is important that my research is transparent and participants are clear on their roles (and mine), the purpose, process and outcome of my research, and that they feel at ease with my presence (Cohen, Manion and Morrison, 2015).

Interview data will provide narrative data on the ways volunteers participated in activity, what they understood about the demands of activity (for example social interaction/ communication/ information and sensory processing) and what they felt about the activity (such as strengths and challenges for them). This data will be analysed for the sociocultural structures that shape roles and relationships, and for the influence of these structures on individual agency. I will also reflect on the descriptions from my role as trainer to identify the ways structure and agency are being influenced by policy and staff confidence in learner diversity.

Researcher reflectivity:

Researcher reflectivity is important to examine the multiple 'realities' within a singular school context. The sociocultural perspective epistemological stance of this study is that knowledge emerges from, and is shaped by, the interactions between people and objects within their setting. Thus self and 'cultural' identity (as the roles and relationships between people); the structure of activity (the ways activity is organised to provide opportunities to participate) and the influence structure has on agency (as the ways people participate) is central to understand experience. My study acknowledges that multiple realities emerge through the different experiences' individuals have across different contexts, which affords them different perspectives. These may vary in their congruency between people and influence the ways they participate within a shared context (in this study the classroom) and experience their sense of belonging. Therefore, to understand the roles and relationships between participants it is important to consider their wider sociocultural experiences. To do this I will interrogate volunteer classroom staff participants (teacher/teaching assistant), volunteer pupil participant/s (a young person with ASC and peer/s identified as significant to him/her – see earlier) and trainer perspectives using Rogoff's (2003) interpersonal, intrapersonal and institutional planes of analysis.

The trainer perspective is important to examine as a 'native' position. This is because my role as a certified trainer for a nationally accredited, DfE funded programme requires me to deliver specified training. This training reflects the vision and principles of the Autism Education Trust. Therefore, as a trainer my role in the research process is to examine what is happening in practice that is influencing the opportunities for a young person with ASC to access classroom activity. My role as a researcher is to explore the 'how' and 'why' of 'what' is happening and to investigate this from a critical perspective. Thus, my integrity within researcher reflectivity is paramount within the research. This will be achieved through my researcher journal that will document my thoughts and feelings (as a trainer) of what is understood – from observations and interviews – about ASC (as a difference in social interaction, communication, information and sensory processing; and the strengths, interests and motivations of a pupil with autism) and the ways he/she participates in shared activity.

The role of researcher reflexivity is important to the qualitative research process and the validity of findings (Mercer, 2007. Cohen, Manion and Morrison, 2015). I argue that my

position (as a participant and a researcher) within this study is unique and innovative. It transcends the dichotomy of dualism (Mercer, 2007) through the use of autoethnography as a reflective tool. This is appropriate for the ethnographic approach used for my study.

Auto-ethnography as a qualitative research approach thrives on lived experience. Raab (2013) notes the innovative way that auto-ethnography connects the researcher to participants and the writer to the reader. Experience, thoughts and feelings are reflected in narrative data. Thus, data is moved beyond the use of narrative as a 'background' story or chronology of events from the way the researcher incorporates their perspective (Cohen, Manion and Morrison, 2011). I will use auto-ethnography as a research tool, and not as a methodological approach. This research decision is unique and is pertinent to me because I am interested in understanding what is currently happening in the classroom from my position as a 'trainer' and why it is happening from a critical perspective informed by literature (as a 'researcher'). Therefore, my use of autoethnography as a tool enables me to interact with, and have a dynamic role within, the research process. I will keep an autoethnographic research journal of my thoughts and feelings, and as an aide memoire during the research process (for example during observations).

Reflection is a sociocultural process that is important to transform the ways people participate in activity (Rogoff, 2003). Therefore, a journal is a useful research tool to examine for researcher bias (Cohen, Morrison and Manion, 2011) and because my journal will be autoethnographic, it will reflect my interaction within the research process (Raab, 2013). Thus, the data from reflexivity becomes the dynamic interplay to reflect knowledge as being socially and contextually situated and transmitted through activity (Rogoff, 2003). The research journal will be typed as notes (to serve as an aide memoire) on my laptop during my visits. It will be extended to full typed text that relates to my observation data subsequent to this. This moves my data beyond description to explore what staff and peers understand about classroom roles and relationships in activity (using Rogoff's interpersonal plane), and the influence of 'institutional' structures on classroom practice and activity from a trainer's perspective ('institutional' plane, Rogoff) to understand what is contributing to a young person's sense of belonging in the class (as Rogoff's intrapersonal plane). The research process within my study

is thereby interpreted from how meaning is constructed to form the unique culture of this classroom (Conn, 2014a).

Thus, the design of my study enables me to reflect as a 'trainer' on the current influence of knowledge on legislation and ASC within the school as an 'institution', and the ways this knowledge emerges within classroom practice. My reflexivity is bounded in what is happening within the school in relation to the framework of the AET programme within which I work in my professional capacity. Further, as a researcher, it enables analysis through the 'institutional' plane (Rogoff, 2003) that is necessary to develop an understanding of the links between theory (the programme and school policy), practice (what is happening in the classroom) and lived experience (the way what is happening is being experienced). Thus, my research has practical application to my working practice.

My research questions have been informed by my findings from my initial study and have been revised to reflect my current role within my working practice. They are:

1. *How does the way teachers and pupils participate in the classroom help us understand an autistic young person's experiences of diversity?*
2. *What dominant beliefs about roles and relationships emerge from the actions and discourse within classroom activity?*
3. *How does the structure and organisation of classroom activity provide opportunities for a young person with ASC to transform their role and relationships in this setting?*
4. *How do the wider institutional 'structures' influence overall experience of participation and shape individual agency?*

Thus, my research tools are designed to describe the types of interactions that take place between people during classroom activity, and to elicit what these interactions mean to them from their unique perspectives. My thoughts and feelings on the influence that interactions and the organisation of activity have on the ways different people participate will be written down as field notes during my visits. My field notes will reflect my position as a trainer within the dynamic research process.

Relevance of findings to the sociocultural context they emerge from:

Cohen, Manion and Morrison (2011) suggest that singular methods of data collection (for example, interview) are insufficient to generate rich data and depth in understanding. To counter this, and to give greater credibility and relevance to the findings from my research questions, I will use multiple data methods (observation, researcher reflection and interviews) to generate a more accurate and holistic insight into a young person with ASC's experience and sense of belonging in a lesson.

Credibility and trustworthiness through authenticity are important within this study to give high relevance of my findings to the school that provide the opportunity for them to reflect on policy and practice. High relevance offers the opportunity for myself and staff to reflect on the structures that influence agency and actions. This is important for the influence structure has on teacher agency and the well-being of a young person with ASC (Talib and Paulson, 2015). The insight offered through giving 'a voice' to a young person's experience, provides opportunity to reflect on pedagogical beliefs and practice about what is understood about the different ways people understand and use language, and process information within the classroom. This is important in the complex climate of education that drives for holistic development, but where pressures of academic performance appear to be prioritised. Reflection, as a sociocultural process, is important to transform the ways people participate in activity (Rogoff, 2003). Thus, reflection is vital in the support of social- emotional well-being that underpins all learning (Talib and Paulson, 2015) and to transform a young person's school experience that is the foundation for transition to adulthood.

6.**Participants**

Give details of the population targeted or from which you will be sampling and how this sampling will be done. Give information on the diversity of the sample.

This study will take place in a mainstream secondary (11-18) school. Participants will be selected on a volunteer basis (see recruitment of participants). The research purpose is to 'give a voice' to the experience of a young person with ASC as he/she participates in his/her mainstream school. Therefore a young person with a diagnosis of ASC (who is aware of their diagnosis and is comfortable to share their unique way they experience school life) within the 11-18 age group will be invited to volunteer to participate in this research. (See recruitment procedures section within application). To ensure the study is able to be undertaken in the event of a singular participant with ASC being absent/excluded from school, or in the event that he/she wishes to withdraw subsequent to agreeing to participate, a note will be made of any other potential participants who have expressed an interest to be involved. Thus, if circumstances change this will provide the opportunity to continue the study.

To investigate the sociocultural processes within classroom settings that are shaping his/her experience, staff teaching him/her on each of the five lessons over the days of my visits will

also be invited to participate, along with 'significant' peer/s identified by the teacher participants and the young person. Staff and pupil involvement as participants within their usual daily experience within the school setting is imperative to generate an account of 'lived experience' from the perspective of a young person with ASC. Head teacher consent to undertake my research will enable me to be present in the classes attended by the young person with ASC. These lessons will have been identified by the young person to be his/her best/favourite day and will provide the opportunity to investigate how these lessons contribute to this day. It is hoped that staff and peer/s will be agreeable to participate to this research process, which is intended to be a positive experience. I will meet with all potential participants to explain the purpose of my research (which will include both mine and their roles in it) to provide them with the opportunity to ask any questions they have. Should they choose not to participate in interviews, only observation data of the lesson will be included within the study. All participants will be made aware of their right to withdraw at any point, and to have their individual data removed.

7.	Recruitment	procedures
-----------	--------------------	-------------------

Give details of how potential participants will be identified and approached. Where there is any potential for coercion, include details, also how this will be addressed. For example, where the participants are known to the researcher either personally or professionally.

Selecting participants:

My decision to select my participants on a volunteer basis recognises that 'lived experience' inherent to my study has ethical implications (see ethics). A diagnosis of ASC will be applied to recruit a volunteer pupil participant. It is important that this young person is aware of their diagnosis and understands that I am interested in what this means to them and the experiences they have in school. Therefore, I will consult with the SENCo to identify a pool of potential participants who meet this criterion before parent/s and young people are offered the

opportunity to be included in the study. To reduce potential issues around power-relations (Cohen, Manion and Morrison, 2011)) the parent/s of potential young people participants will be sent a letter outlining the purpose of the research, with a follow up phone call from the researcher to have further information and to give them the opportunity to 'opt in'. This 'opt in' approach acknowledges potential issues arising from perceptions of power relations (Cohen, Manion and Morrison, 2011) that may be perceived between home and school/ home and researcher, for a study that is intended to recognise the importance of difference and how it is understood within the mainstream setting. Young person participants will not be approached until gatekeeper (parent/carer) consent has been attained. A meeting (in a setting agreed to be comfortable for the young person) with parent/carer, potential young person participant and the researcher will be organised to discuss the young person participant role within the research process and to enable any queries to be raised and answered. To be included within the research process signed consent will be required from parent/carer and young person within a week of the meeting. This is to allow time for potential participants to reflect on what they understand and make a free and informed choice. This is important to establish to enable me to explore my research questions from the unique perspective of the agency of one young person and to investigate the sociocultural structures that shape this. This makes this study context specific and detailed and provides additional case study evidence for other researchers interested in this area. Thus, the strength of my study and its findings is the detailed description of experience as it is lived. This moves beyond the generalised findings from large scale, non-contextual studies.

I have a good working relationship with the school SENCo - Mr. Jones (pseudonym). His involvement in my research is crucial because of his in-depth knowledge of both pupils and staff. His daily contact with pupils within the Special Needs department, and the relationships he has established between himself and parents, are important to recognise the strengths and vulnerabilities of different pupils with ASC. It is crucial that volunteers are comfortable with and understand their diagnosis and are aware of the process of the research and their involvement in it. Mr Jones' knowledge of individual pupil manifestations of ASC and how they cope with unfamiliar situations will thus be central to our discussions on potential pupil participants. Individual manifestations of social interactions, communication, imagination and repetitive behaviour within autism is varied, reflecting autism as having a 'graphic equaliser' (Jackson, 2003, p22) effect. Thus, I argue that no 'typical' case can be represented. The

young person is thus recognised as being authentic within the school 'structures' and sociocultural processes shaping this experience. From our professional discussion, Mr Jones (as a school representative who parents//carers know to be authentic) will contact parent/s/carers of potential young person participants to offer them the opportunity to have a letter sent to them regarding the study. His role as liaison between school/home and researcher is important to assure home that school are aware of and have authorised me to study within the setting.

Staff participants will also be recruited on a volunteer basis. Their position as potential participants will be influenced by the timetabled lessons on the days of my visits. This may vary over the three visits as the study will be led by young person's preference. This is to empower the young person within the research process and reflect his/her perception of 'best day' over the school year. Thus, the criterion for their involvement will be the presence of the young person in their lesson. I will meet with staff timetabled to be in the young person's lessons across the day of my visits. This meeting (as a group of staff to reduce demands for staff on their time) will take place prior to their scheduled staff meeting (directed time) on the week prior to the day of my visit. This will provide them with the opportunity to discuss the study with me, and to consider their participation in interviews. Signed consent to participate in interviews will be required in the time between the meeting and the day of my visit to give them time to reflect or raise any queries. Participant staff will be asked to identify potential pupil peer participants.

Peer participants will be recruited on a volunteer basis. The criteria applied will be pupil/s who are considered to be significant to the young person with ASC in each lesson (as identified by lesson staff and by the participant with ASC). 'Significant' will be determined individually (for example the pupil who sits next to/ works with/ is considered to be a friend of). This will be established using social mapping (where the young person with ASC will be asked to map on paper who he/she feels is most significant to him/her for each of his/her lessons). This will provide visual data on the young person's perception of his/her role and relationships within different lessons. The use of social mapping reduces language demands and has the potential to explore roles and relationships further within interview. Peer participants and their parent/s

will be contacted as part of the research process (as outlined for the young person participant), to gain informed consent (see consent section).

.

8.

Consent

*Provide information on how valid consent will be sought from participants and attach copies of information sheet(s) and consent form(s). See Research Ethics website - [FAQ 13](#) and [FAQ 14](#) for guidance and templates. Consent forms and/or information sheets **have** to include the following or a rationale as to why not:*

- *An alternative contact as well as the PI*
- *Clear information on how and when a participant may withdraw from the research, and that after a certain point, e.g. the data gathering phase, it may not be possible, particularly if the data has been anonymised.*
- *Separate forms for each participant group - where applicable*
- *Information on how research data will be stored and disseminated/published*

Cohen, Manion and Morrison (2011) note that participant control is important to participant motivation and confidence to speak openly within interviews, and for the participant to engage in daily activities as they usually would. Participant informed consent and the right to withdraw at any point are important for ethical and moral purposes. The recruitment procedures in my study have been organised to minimise perceptions of power relations. Preparatory work with Mr. Jones (who I work alongside with in my professional role) is sensitive to the personalities and challenges faced by the young people with ASC he works with. His experiences with these young people will influence which parent/s/carers are approached regarding their child's potential participation. Young person participants identified as significant to the young person with ASC and/or their teachers will also be considered in consultation with Mr Jones prior to their parents being contacted by myself through letter and telephone call. Thus, before pupils are considered, their parent/s/carers will have acted as gatekeepers. Therefore, an additional 'layer' in consent is built in to reduce potential child feelings of wishing to please adults who they may perceive as

'authority' figures (e.g. Mr Jones as a teacher; myself as an 'important' visitor). Staff participant consent will be sought through a professional discussion with myself and staff members as an initial approach to provide them with information on the research interest and purpose. A 'cool off' period is also built into the research process for all potential participants. This is to give potential participants a period of time to further discuss and consider what they understand about the research to enable informed consent to participate, or to not be included. In this manner, a high level of control is given to potential participants. Their free and informed consent will be gained through written and verbal information that considers differences in levels of understandings from age, experience and differences in information processing, and language. Thus, I will seek to empower participants by recruiting them as volunteers through rigorous and sensitive recruitment (see selecting participants), and by ensuring their consent is freely given and informed through transparency. Transparency in my role (as a researcher who is interested in the ways different people interact, communicate and understand information within the classroom) and their role as participants (who take part in classroom activity together), will be adjusted to their levels of understanding (this considers the age and experience of participants within the setting). Participants will engage in their usual activities within the research process, and what they understand about their role and right to withdraw will be checked as part of the ongoing research process.

Head teacher consent for the school, pupils, and staff members within it, to participate will be attained prior to recruitment of volunteer participants. This recognises the position of 'gatekeeper' held by the head teacher, professional courtesy and the legal standing of the head teacher to authorise the researcher to be on school grounds. An initial email giving information on the purpose of the research, my position as a doctoral researcher, the research process, use of findings from the study and a request to undertake the research in the school setting, will be sent to the head teacher. Thus, informed consent (BERA, 2011) can be enabled. Consent will be attained through either a telephone conversation, or a face to face meeting (dependent on the availability of the headteacher) and confirmed via email.

The SENCo and I have discussed pupils in the school who have an ASC diagnosis as part of my role in our working relationship. He has deep, insider knowledge of the pupils that

can be used to identify a potential participant from the criteria of ASC diagnosis and attending mainstream lessons that are applied in my research. His involvement with these pupils on a day-to-day basis is important because he has in-depth knowledge of their individual manifestations of ASC and how they cope with unfamiliar situations.

Individual manifestations of social interactions, communication, imagination and repetitive behaviour within autism is varied, reflecting autism as having a 'graphic equaliser' (Jackson, 2003, p22) effect. Thus, I argue that no 'typical' case can be represented. The young person with autism and his experience is thus recognised as being authentic whereby sensitivity to individual difference in social interaction, communication and information processing is necessary throughout the research process. Informed consent from pupil participants (as vulnerable by age – under 16 – and specific group - ASC) will be attained from parents/carers as gatekeepers as well as the young person. This will acknowledge that both agree they understand (and have had the opportunity to discuss with the researcher what it is they understand about) the interest, purpose, procedures and protocol- e.g. the use of pseudonyms; who will have access to research information during and after the research process; the right to withdraw and for data to be removed- of the research. Thus, signed consent (consent form- as attached to this application in template form) serves to authorise participation through freely given, informed consent.

Teachers responsible for teaching the participant pupil on the days of my visit will be approached by myself or SENCo to ask if they will volunteer to participate. Once these staff have been identified through the timetable, I will arrange a time within the school day (including directed time- such as staff meeting) to meet with staff as a group. This will provide the opportunity for staff to discuss with me, and to be given written information on the interest, purpose, process, protocol and participants' roles. The SENCo has knowledge and understanding on the research purpose and process as this has been discussed with him during our meetings together, and through his prior experience working with me during my initial study in his previous school setting. His written consent will be attained prior to me undertaking the research. Thus that Mr Jones knows, understands and is familiar with my research, and is easily accessible on a daily basis to staff should they wish to discuss any immediate queries, supports staff informed consent. Staff will also have my telephone and email details, and the details of my main supervisor should they wish to raise any

queries directly. They will be asked to sign consent forms within a week of meeting with me, to confirm they wish to participate in interviews and have this data included within the study. Interviews will not be conducted without this consent. Whilst staff consent to participate in the research process provides the opportunity to explore the decisions and thoughts that guide actions and practice in the classroom from the adult perspective, it is not essential for the study. The perspective of the young person with ASC is not reliant on adult perspective.

Young person participants:

The criterion for young person participant in this study is a diagnosis of Asperger's Syndrome; and a peer identified to be 'significant' to him/her within each class setting. This is because this study explores the actions and discourse that occur between people in shared activity. Young person participants will be invited to take part on a volunteer basis, after their parents have been contacted via an initial letter and follow up telephone call (a face to face meeting can be arranged if parent/s/carers so wish) for consent on their child's participation. This will follow the same procedure as that for young people with a diagnosis of ASC, identified earlier in this application. Peer participation in interviews (as with staff) is not essential for gaining the young person with ASC's perceptions of their mainstream experience. However, it would provide further information on the sociocultural processes that are shaping experiences. Therefore (for all participants) it is important to emphasise that my study is interested in individuals' thoughts and actions within the classroom, and to explain that individuals will be given 'made up names' so that other people won't recognise them in the report that I write. Thus, parents of peers (as for the young person with ASC) act as gatekeepers, a necessary condition for informed consent with young person participation (Cohen, Manion and Morrison, 2011; Human Research Ethics Committee, 2015). This is important because of potential issues that may occur with young people under 16, as a vulnerable group (Cohen, Manion and Morrison, 2011) and through having a diagnosis of autism.

I have examined the research process, and considered the ethical obligations I have as researcher to uphold participants' right to freedom, attain informed consent and negotiate

perceptions around these (for example, power relations and anxieties that may be felt when in an unfamiliar position; and in particular for a young person with autism, the understandings around language that might influence what is understood about the research purpose, there and my roles within it). Therefore I will ask all participants what they understand to be the interest of my research; why I am doing it and asking them to be part of it; what they understand they will be doing during the research and why; and both who I am and what I will be doing when I am in class and when we meet to talk about their classroom experiences. This will require me to be particularly sensitive to what young people understand due to their particular vulnerability of age, and pertinently with ASC, through the potential of anxiety and communication difficulties, that may affect the ability to express consent or withdrawal of the participant and individual data at any point (HREC, 2015). Thus, adult advocates (e.g. school staff/parent/s/carers) will be assured to young people.

Informed consent, and strategies to enable the young person to participate (such as the most appropriate ways to present information) will be discussed with the SENCo and parents. Forewarning of what will happen (lesson observation and interview) and assurance that a familiar and trusted adult will be present during interview will take place. I will explain that I am interested in what the experience of being a young person in the classroom is like for them, and that I would really like to hear about their experience. I will ask them about things that I noticed they and/or others did/said or were asked to do and ask them to tell me more about these things. Thus, I intend to move the discussion from 'concrete' (what I observed), to what their thoughts, feeling and explanations of these things were. Written information will be discussed with the SENCo for its appropriateness and relevance to the young person's understanding of language. The interviews thus provide an opportunity 'to chat' about experience (as more informal and potentially less intimidating from a young person's perspective). These 'chats' will be able to be open about the differences in how people understand and use information and language in social settings because the young person with a diagnosis of ASC will be identified as being perfectly comfortable with his/her diagnosis by the SENCo, parent/carer and the young person themselves. Staff are aware of all pupils with Special Educational Needs within the school and are told what these needs are. Therefore, staff will be aware of the young

person's difference in a school environment where difference is not stigmatised, and where all pupils are encouraged to view difference positively.

I am aware that, particularly for people with autism, anxiety can interfere with what is understood and communicated in social interactions (Attwood, 1998). I have considered how this could be problematic for a young person's empowerment and control within the research process. Thus, I will talk with the young person about anxieties and how they recognise them (as is my working practice when I work with young people with autism). The option of using augmented communication such as 'traffic light' cards (a green, yellow and a red card) to indicate feelings and thoughts will be made available, along with a familiar adult advocate.

9.	Location(s)	of	data	collection
----	-------------	----	------	------------

Give details of where and when data will be collected, with an explanation of why the research needs to be conducted in the chosen setting or location. If it will take place on private, corporate or institutional premises, indicate what approvals are gained/required.

The school:

My job as a Specialist Advisory Outreach Teacher requires DBS clearance via the Local Authority, for me to work with children and within school settings. I have DBS clearance (DBS number: 1405436650) and am familiar with some staff and pupils within the case study school through my advisory work with them. However, within the research process I will present myself as a researcher. It is important that this distinction in my role is made explicit to reduce any possible 'social desirability bias (where people modify their behaviour to 'please' or 'meet the expectations' of someone else) that may be shown by participants through their perceptions of me being an 'expert' that is aligned with my role as an advisory teacher/trainer.

My study is context-situated because it is undertaken from the epistemological position of the sociocultural perspective that meanings emerge from the context in which activity occurs.

Thus, data collection tools must be fit for their purpose to generate contextual data so that findings to research questions are high in relevance (Cohen, Manion and Morrison, 2011). This is important to the validity and credibility of my case study of lessons observed during my three visits. This informed my choice of ethnographic tools. Therefore, I will observe classroom activity as it occurs and type notes on the actions that take place between key participants (young person with ASC; peer; class teacher). This will increase the relevance of my study to the case study school.

I will consider the practical aspects of when to interview participants within the daily running of the school. The timetabling of lessons (that run back to back and require teachers to release one class and organise the 'immediate' arrival of the next) will require discussion with staff as to when they have time available for interviews to take place. This consideration will also need to be accommodated with pupil participants.

I will also need to consider the timetabling of break and lunchtimes, and the activities and tasks that participants are involved in (for example eating lunch, meeting friends/colleagues, lunchtime clubs/ detention and such like). It is important that interviews are organised around duties that staff need to fulfil, and the social activity that pupils are involved in. This will be discussed with participants so that interview schedules fit around their needs.

Issues of consent around this research being conducted in a school setting are noted within the 'consent' section of this application. The case study school is a large mainstream secondary (11-16 years) comprehensive school. Just over ten per cent of pupils on roll are identified as having Special Educational Needs, of whom seven have a diagnosis of ASC and have Statements of Special Educational Need, and nine have a diagnosis of ASC with no Statemented support. All pupils are taught in mainstream lessons by curriculum subject staff.

Provide a brief review of the existing literature or previous research. Clarify whether the proposed study replicates prior work and/or duplicates work done elsewhere and/or has an element of originality (maximum 200 words).

My study draws on Conn's (2014b) sociocultural investigation into 'the social engagement of children with autism in mainstream schools for the purpose of identifying learning targets'. This focused on 'Kyle' (a pupil with ASC) and his actions and understandings of social behaviour within a mainstream primary school setting. Conn identified that what is understood about differences in the ways people interact and communicate in activity determines the role and relationship they have with others. Subtle differences in Kyle's spontaneity within interactions shaped what was understood about him by his 'neuro-typical' peers and placed him on the periphery of mainstream peers' activities.

My initial study explored the way that sociocultural processes within the structure and organisation of classroom activity shaped Tom's (a 13-year-old with ASC) sense of belonging from the role and relationships he experienced with others. Tom's description identified his role as being on the periphery of the group in his peer relationships. When adopting peer 'norms' in adolescence becomes associated with peer acceptance (Hay and Winn, 2012) that is important to emotional/mental well-being (William, Craig and Slinger, 2008) problems emerge. My current research proposal seeks to explore the mainstream experience of another adolescent with ASC in a different setting to interrogate how diversity is understood, practised and experienced from the autism perspective.

Key Ethics considerations

11. Published ethics and legal guidelines to be followed

Detail which guidelines will be followed by the researchers.

For example: BERA, BPS, BSA, SRA, MRS, SPA, UK Evaluation Society (see [FAQ 5](#) on the Research Ethics website for more information).

BERA

12. Data protection and information security

If your research involves the collection of information about individuals, you will need to register your project with the University's Data Protection Coordinator - please confirm that this has been done (see [FAQ 7](#)). Please provide the HREC with details of the procedures and schedule (including dates) to be followed re: storage and disposal of data to comply with the Data Protection Act. Indicate the earliest and latest date for the destruction of original data, where it is required, or any archiving arrangements that have been agreed/permitted and ensure this is included in the project schedule. You should also be aware of OU information security policy and guidance (see [FAQ 8](#)).

Participants and the school will from the outset be identified using pseudonyms. Real names will only be available on hard copy consent forms. These will be stored in a lockable safe, attached to the floor of the researcher's house. This is only accessible to the researcher unless requested by Open University supervisors or at HREC request. There will be no electronic use of real names at any point in the research process.

13. Research data management, disseminating and publishing research outcomes

If not covered elsewhere in your application, please give details of how your research data will be managed and published. Any funding body requirements should also be provided, e.g. the Economic Social Research Council (ESRC) requests data is deposited in a repository. It is recommended that all researchers applying to HREC write a Data Management Plan (DMP). Guidance and templates for writing a DMP are available on the [Library Research Support website](#), with links to OU Open Access and [ORDO](#) (Open Research Data Online). If you need further help contact the [Library Research Support team](#) or visit the [Library Research support website](#) and [FAQ 16](#) for links and guidance.

All data will be stored on a password protected laptop that has secured access. Data will also be backed up on an encrypted memory stick. Audio recordings will be deleted when the thesis is finally accepted. In the interim the audio recorder will be stored in a locked safe that is coded and screwed to the floor of the researcher's house. Data will be shared with the researcher's supervisors and will be available to examiners in end of year submissions. All participants and the school will be anonymised through the use of pseudonyms. The final thesis will be published as part of the EdD requirements. Participants will be made aware of this availability. They will remain able to withdraw their consent to have their data removed until the end of the academic year 2017-2018.

14. Deception

Give details of the withholding of any information from participants, or misrepresentation or other deception that is an integral part of the research. Any such deception should be fully justified.

There is no deception within this research

15. Risk of harm

Detail any foreseen risks to participants or researchers (e.g. home visits) and based on a risk assessment, the steps that will be taken to minimise/counter these (a Project risk assessment matrix is available at [FAQ 14](#)). If the proposed study involves contact with children or other vulnerable groups, please confirm that, where necessary, the requirements of the Disclosure and Barring Service have been met and give the relevant reference number and period covered for each person involved in the research ([FAQ 10](#)). You should also be aware of the OU Safeguarding Policy which is linked to FAQ 10.

Ethics, issues, access and consent:

This study is designed to reflect normal activities and behaviours with minimal risk of harm to participants. Thus, participants will attend lessons as usual. Participants will be invited to take part and provided with verbal and written information to enable informed consent (see copy of consent form).

This study involves human participants, and thus requires ethical approval to be obtained prior to research being undertaken. The settings for individual interviews will require practical consideration. To empower participants will be asked where and when they would be happiest to be interviewed- for example in the classroom, away from the classroom; between lessons /free periods for staff; break/lunch/after school time. However, all interviews will be conducted in a regular room on the school site. Pupil participants will be allowed to have a familiar person present with them (adult or peer) if they feel this would be helpful to them. This acknowledges young person vulnerability as members of a 'vulnerable' group (BERA, 2011) and considers the benefit of having someone familiar to help them feel more at ease, and empowered during the interviews (Cohen, Manion and Morrison, 2011).

For privacy during interviews I will put a 'Meeting in progress: Do not disturb.' sign on the door of the room. This is to enable conversational flow and descriptions to emerge without interruption. The school and the participants will be assured all data, individual and school information would

be kept confidential, and anonymised in line with British Educational Research Association (BERA) (2011) and Human Research Ethics Committee (HREC) (2015) requirements.

I will identify myself as a student within the Open University EdD programme to gatekeepers and participants. I will explain that this study is being overseen by two supervisors, employed by the Open University, who have Doctoral qualification. Thus, they will have access to the information, along with external assessors.

I am aware of, and have accessed the IT information security guidance and information security policies and procedures related to the security of personal data as identified within the HREC application procedures.

16.

Debriefing

Give details of how information will be given to participants after data collection to inform them of the outcomes of their participation and the research more broadly.

Gatekeepers and participants will be made aware that the final report will be available electronically on line when successfully completed, and that they will be able to see and discuss the research at any point of the process (either with myself or with my supervisors). They will be given assurance that all information stored securely on my computer, and on a memory stick for back up, will not be accessible to anyone else. These steps conform to HREC (2015) guidelines.

Project Management

17. Research organisation and funding

Please provide details of the principal funding body (internal or external). If your project is part of a current or successful externally funded bid, enter your Award Management System (AMS) reference number below. For further guidance contact your Faculty Research Administrator (FRA) or refer to the [Research and Enterprise website](#) (internal site).

AMS reference number:

N/A

18. Other project-related risks

Indicate how research risks are to be limited by anticipating potential problems. If you are carrying out fieldwork in the UK or overseas you should be aware of the [OU FLD policy and procedures](#) and [International Travel Risk Program](#) (internal links).

Please see risk of harm

19. Benefits and knowledge transfer

State how the research may be of general benefit to participants and society in general (100 words maximum).

Raising awareness of autism within mainstream settings is important to empower school staff to reflect on pupil diversity in their classroom and to enable them to change practice. The development of the 'whole person' is important to individual emotional and mental well-being that empowers academic and social participation. This study is context specific and will be of high relevance to the case study school. It can also add to the growing body of sociocultural research on the ways sociocultural activity can transform what is understood about diversity

and how this can be embraced for the benefit of individuals and the wider communities they are in.

20. Supporting documents

Include as attachments or appendices, any documents related to your research proposal. Add the HREC reference number to each (if already known), and list below, for example:

Consent form and Participant information sheet – for each participant group	X <input type="checkbox"/>
Questionnaire	<input type="checkbox"/>
Email or letter from the organisation agreeing that the research can take place	<input type="checkbox"/>
Draft bid or project outline	<input type="checkbox"/>
Publicity leaflet	<input type="checkbox"/>

21. Declaration

I declare that the research will conform to the above protocol and that any significant changes or new ethics issues will be raised with the HREC before they are implemented.

I declare that I have read and will adhere to the following two OU documents (scroll down from following links):

- [OU Code Of Practice For Research](#)
- [OU Ethics Principles for Research involving Human Participants](#)

To meet internal governance and highlight OU research, the titles of all projects considered by the HREC (whether by HREC checklist or proforma), will be added to the Research Ethics website - <http://www.open.ac.uk/research/ethics/human-research>.

Name:	Angela Willis
School/Unit/Faculty:	CREET
Telephone	
E-mail	
Signature(s) (scanned or electronic)	A.D. Willis
Date:	1.1.11

End of project final report

Once your research has been completed you will need to complete and submit an [End of research project final report](#).

Proposed date for final report:	June 2019
--	-----------

Response to comments raised in gaining approval:

Dear Louise

Thank you for your email regarding my HREC application. I am responding to the points raised, and hope that this will enable my application to be reconsidered.

Comments:

1. This seems to be a carefully designed study but there should be a PIS and consent form for the teachers involved in the study

Response: An information sheet and a consent form for teachers (teacher A) was submitted with my original application (31.10.2017). This study is merely an extension, following the success of the first phase of my doctoral study that received HREC approval (reference number HREC/2015/2163/Willis). I attach further copies as approved previously. At the current time the exact number of staff who will be asked to participate as volunteers is unknown. This is because the pupil participant with a diagnosis and who meets the criteria for participation has not been established. This conversation has not taken place at present because my role in the school has been in my professional working capacity. When staff numbers have been ascertained, staff will be given both the information and consent form when I meet with them. In this meeting I will verbally go through the forms with them and they will have the opportunity to raise any questions or concerns they may have. They will be identified for the purpose of the consent form by their subject area and their role. For example, maths teacher/ teaching assistant maths lesson.

2.The PIS and consent form language for parents and participants should be simplified and made more easily understandable.

Response: Please see response to comment 1 - the consent form has already been used and posed no difficulties (HREC reference number HREC/2015/2163/Willis). Further to this staff participants will have the opportunity to discuss the research purpose, procedures and their role within it prior to them giving consent or wishing to not have data collected on them.

3. In the event of only one participant being involved, which is mentioned, the researcher should refer to the following guidelines re publication Barbour V on behalf of COPE Council. Journals' Best Practices for Ensuring Consent for Publishing Medical Case Reports: guidance from COPE December 2016 www.publicationethics.org while we know this is medical the principles are generic.

Response: I have looked at the information on the link provided. I wish to clarify that whilst I may publish for the purpose of my doctoral thesis, I will not be publishing the case study data in any recognisable form.

Specific issues:

1. We have some concerns as the pro forma is quite long, but it still doesn't cover key details around research design, data management and outputs.

Response: Section 5 of my HREC application identifies the research design through a detailed methodology.

Data management and research outcomes (a doctoral thesis) are referred to in section 13 of my application. As requested in by HREC I have given further details within my responses as detailed within this current email.

2. Some of these details such as the use of 'focus groups' of 3 pupils only appear in the consent forms and are not explained or justified in the pro-forma.

Response: To avoid confusion I have removed the term 'focus group'. The sociocultural framework of my study seeks to explore the perspective of a young person with a diagnosis of ASC. It is important therefore to the study to have a person-centred approach. Thus, how young person participant interviews are organised will be negotiated with the student who has a diagnosis of ASC. This considers that he/she may feel more confident to talk away from his/her peer; the young person may not have identified a peer he/she considers to be significant to them in that lesson; the peer identified by the teacher may not be considered by the young person with ASC to be of the same significance; the young person with ASC may feel more comfortable speaking in the presence of a peer he/she determines to be significant to him/her. Therefore, until these are explored with the young person with ASC (whom has yet to be considered as a potential participant) it is unknown as to how many young people will be involved.

However, the 'group' of young people has the potential to be comprised of a pupil with a diagnosis of autism and up to 2 peers identified to be significant to that young person.

3. It appears that 'observation' would be taking place in classrooms, requiring consent from all the pupils and teachers in attendance. There is no consent form or information sheet for this. - my understanding is the head teacher acts as gatekeeper to give this consent. This was the case in my initial study. Observation of classroom activity is accepted practice in the school. Would there not be potential jeopardy to the study being naturalistic if I was gaining consent from potentially 30 pupils plus parent/ Carers x 6 lessons on 3 separate visits?? Advice please!!!

Response: I reiterate that I will not be referring to any other pupil specifically other than those for whom I will get consent from- i.e. the pupils I will interview and who have been identified by the young person with ASC/ teacher as being significant. The other pupils in the class are merely in the 'background'. I will be focusing on what the teacher is doing (consent will have been ascertained for this). I will make observations re what the teacher does but referring to pupils' response as a group and not as individuals- for example Mr Smith says, 'Be quiet'. Class goes quiet except for a few. Mr Smith looks really cross and raises his voice at them. 'Peter' ('Focus' student pupil with ASC) looks scared and looks at 'Jane' (identified as significant by 'peter') for reassurance. 'Jane' nods and smiles back. Thus it would only be 'Peter' (the pupil with ASC) and 'Jane' (identified as significant to the pupil with autism, and whom consent has been gained) who I would collect observation data for within the class setting.

5. The applicant seems highly reliant on 'Mr Jones' and her working relationship with him. He in turn appears to be taking on some of the tasks of recruiting teachers to the project, identifying prospective students for the study, etc

Response: Because of the nature of the study - focusing on a student with ASC - it is necessary to work through a third party who is familiar with both the requirements of the research and the workings of the school. This is extremely common practice in inclusive, participative research such as this to negotiate the research design with those involved. Therefore, Mr Jones knows the timetable and the staff responsible for the classes. He would need to share that with me to enable me to approach them. I have identified that an additional layer of consent is made available to staff by them being able to give/ withdraw consent via him (as someone they have an established relationship with and have the confidence to decline participation) . They also have the opportunity to give/ withdraw consent via myself or my supervisor (identified with them verbally and within the

informed consent process). I would intend these multi option routes to reduce any potential power relations that staff may perceive in my role as an advisory teacher and my role as a researcher.

6.They have already discussed students in the school with a relevant diagnosis (Pro Forma section 8).

Response: I have identified in my application that Mr Jones and I have discussed pupils with a diagnosis part of my working professional role. I am an advisory teacher, and this is inherent within my working role and job description. This discussion has not been on a research basis in my role as a doctoral researcher, and this has not considered pupils as participants and how they might respond to being involved. I have stated that such a conversation would not take place until HREC consent had been attained.

7. This relationship has to be clarified alongside consideration of any ethical issues that might arise. (Specifically: Is Mr Jones able to say no to participating? If he asks teachers to take part, are they able to say no?). The 'researcher reflectivity' needs to extend to this informal team member.

Response: Mr Jones role is facilitator- he has the information about timetables/ staff/ pupils that I would need access to so that I can undertake the research in the school. His professional knowledge and relationship with pupils in particular is intended to be protective because he knows individuals and they trust him as they have established relationships that I do not have due to me not being a member of school staff and with me not being involved with them on a daily basis. Mr Jones was the school facilitator in my initial study and is fully aware of his role in the research, and specifically approached me to request his involvement in my extended study.

8. There is a commitment to avoiding using real names in electronic files, but no mention of using a key or of fully anonymising the data.

Response: Other than signatures on consent forms, all participants will be referred to by their pseudonyms or their subject/ role from the outset of the research. Thus, data will be fully anonymised.

9.The applicant should state throughout that she will avoiding naming the town, city or relevant authority in any report/publication, not just the students, school and staff.

Response: See above (8). I confirm that the school/ area/authority demographic will not be identified by name or inference at any point of the research process, write up or publication.

10.The Information sheets and consent forms should be rewritten in clearer language.

Response: please see response to comments 2. Further to this all potential participants will have the opportunity to go through the forms verbally and be asked to tell me what they understand about them. This will enable me to check their understandings and offer further/ alternative explanations that can be discussed to ensure informed consent within an opt in approach to participation.

11.. At present the sheets don't mention submission of a doctoral thesis or any further publications arising from the project.

Response: I have inserted 'doctoral thesis' within the sheets (attached).

12. The consent form asks the parent/guardian to allow the child to participate in 'group interviews' where these are not specified in the pro forma.

Response: I have inserted further explanation for this in the information sheets.

13. Data management: there is no mention in the pro forma of destruction plans or of any future publications after submission of the thesis. The consent forms say 'information' will be destroyed after 5--it is unclear if this is 5 years after collection or 5 years after submission of thesis. The applicant needs to address this through a data management plan. (The practical time limit stated for withdrawal may need to be reconsidered given the risks involved in focusing on one main participant and only 'termly' visits.)

Response: I wish to clarify that all data will be destroyed 5 years after 30 June 2018 (inserted in information/consent sheets). The data collection timescale will be from time of HREC consent until 30th June 2018 to meet the requirements for EdD year 2 report

submission. The final report and thesis are anticipated to be completed and submitted in line with the EdD year 3 programme.




Appendix 3 – Joe’s timetable

Thursday	9-10	10-11	11- 11.20	11.20- 12.20	12.20- 13.20	13.30- 14.30	14.30- 15.30
Subject	Science	English	Break	History	Lunch	Maths	Music
Ability Grouping	Mixed	Low		Mixed		Low	Mixed
Teacher	Mrs Smyth	Miss Prince (Miss Torrey-cover)		Mrs Lennie		Mr Pyman	Mrs Calle
TA	Mrs Peterson	Miss Pelle		Miss Kirkhill		Miss Kirkhill	Miss Kirkhill

Appendix 4 – Sample of raw observational data showing time spent in different types of tasks.

I observed Joe's actions and interactions within different classroom activities to gain insight into his lived reality of his Science lesson experience.

Classroom activity key:

-  Administration tasks
-  Organisation tasks
-  Written tasks
-  Practical tasks
-  Verbal tasks

Chronology	Teacher Actions	TA actions	Joe actions	Significant peer actions –Jessie – sitting next to Joe	Class peer actions
Activity: whole group – teacher led –admin tasks					
1 minute	Intro: 'Find a couple of facts for each planet in the solar system' – Mrs Smyth read the title that she had written on the board 'I want you to do your own one on a page in your book, but you can share your ideas in pairs'.	'You'll enjoy this – you're going to be fine'	Joe (smiling) : 'Yes I will'		Pupil: 'Can we do it in pairs?'
1 minute	Sitting at laptop at front of classroom taking register	Standing on far side of classroom listening.	'yes Miss' in reply to name	Jessie replies to her name	Answer 'yes Miss' or 'here Miss'

3 minutes	<p>'There are options for how you present your work, for example like Top Trumps [card game where facts are presented on cards]'</p>	<p>Opens her own exercise book.</p> <p>Collects pile of pupils exercise books and sorts through them on the far side of the classroom.</p>	<p>Sitting listening</p> <p>Turns his head towards Jessie next to him and they have a brief [inaudible] conversation .</p>	Inaudible conversation with Joe	Pupils raise hands and offer other ways they might present their work
3 minutes	<p>Giving out coloured A3 paper.</p> <p>Yes please</p>	<p>'Shall I go and get some white A3?'</p> <p>Leaves room to fetch white A3</p>	Sitting and waiting		collecting A3 sheets from Mrs Smyth
6 minutes	<p>Hands Joe a book on the solar system and says 'this is a really good book';</p> <p>Continues around the classroom giving pupils reference/fact books on the solar system.</p>	Out of classroom	<p>Joe and Jessie talk to each other [inaudible as class noise has increased whilst pupils organise themselves]. Joe flicks his fingers through the book as he chats with Jessie.</p>	Chatting with Joe	Chatting and moving around the classroom as they organise themselves .

2 minutes	Returns to Joe and Jessie and verbally outlines the task again.	Out of classroom	Joe leaves his seat and walks towards the pile of pupil books on the far side of the classroom. As he passes one pupil (boy) the pupil says 'Alright Joseph' in a 'stated greeting' manner. Joe glances briefly at him and continues to walk to the book pile.		Collect their books from the pile Mrs Peterson has been sorting through
2 minutes	Checking on pupils; giving out paper and books	Out of classroom	Joe returns to his seat with his book; he chats with Jessie sitting next to him. I speak to them, and Jessie tells me this is a new place for her to sit, and Joe tells me they are friends from		Milling around getting the things they need for the task

			outside lessons. They talk to each other when they see each other at break and lunchtimes. This is the only lesson they share together.		
Activity: shared (partner) activity on learning task: find a couple of facts on the planets					
6 minutes	Walking around classroom talking to different pupils about the work they are doing	<p>Mrs Peterson returns to classroom with paper. She puts it down on a desk.</p> <p>Walks over to Joe and Jessie - stands on the opposite side of the desk so she is facing them: 'So how are you going to do it? [points to book]- putting this down? [Points to a fact in book]; are they smaller than these?</p>	<p>Looking at information in book – shows Jessie</p> <p>Looks at book where Mrs Peterson is pointing.</p>	<p>Drawing out planets – looks at the information Joe shows her</p> <p>Looks at book where Mrs Peterson is pointing.</p>	Some pupils go to pick up a sheet from the pile Mrs Peterson has brought in.

		<p>– These look huge! [Pointing to different planets in the picture in the book]’.</p> <p>Nodding in agreement and states ‘Yes if we were to the left or the right we’d burn, so we are best where we are. Do you think there will ever be humans living on other planets?’</p>	<p>drawing solar system in his exercise book then looks up and tells TA and girl about the rocks in the rings around Saturn, adding at the end ‘I used to do something about this in year 5 or 6’.</p>	<p>Explaining to what she understands about how the solar system has been formed.</p> <p>Says ‘yes’ then gives her [inaudible] explanation as to why.</p>	
3 minutes	Approaches and stands next	Standing in front of Joe’s place.	Discusses with Jessie which the		

	<p>to Joe - listens to conversation.</p> <p>Continues around class looking at pupils work. She notices a couple of pupils are producing 3D work: 'I need it 2D, not 3D because it needs to go in your books'.</p>	<p>'The rocky ones are?'</p> <p>Retrieves a different text book, and looks through to find further information.</p>	<p>rocky ones are</p>		
7 minutes	<p>Returns to the Joe, Jessie and Mrs Peterson and praises them for their enthusiasm on their work 'you are doing fantastically – that's great to see how keen you are'.</p> <p>Moves away to other pupils.</p>	<p>reading out which planets are rocky from text book on Joe's desk;</p> <p>Replies 'yes that's right' and continues to look through the page telling Joe which are the rocky planets.</p> <p>Asks Joe if he wants her to do the writing for him. He</p>	<p>Adding this to his diagram.</p> <p>Replies 'yes' in response to Mrs Petersons</p>		

		says yes, and she begins to write information around his diagram.	offer to write for him		
3 minutes	Talking to different pupils about their work	Stops writing briefly to 'check in' with the Jessie – 'how are you getting on?' asking her how she is getting on.	Joe points to planets he thinks are gassy in the text book. Joe sits and waits for Mrs Peterson.	Replies to Mrs Peterson and shows her what she has written.	
10 minutes	Teacher gives the class a verbal reminder of lesson timing: 'You have 15 minutes left to get your information down'.	Returns to Joe's work and reads out more information in the text book. Using questions to make sure work from conversation is written down 'so what are you putting there/... that's gas too isn't it? What else can we put there?'	Adding comments to the information Mrs Peterson is reading. points at his diagram and says 'An	Joins in with Joe and Mrs Peterson's interactions on the information about the planets. Responds to Mrs Peterson question about Mars with 'Mars Bar!' Responds to Mrs Petersons praise by showing her	

		<p>Replies to Jessie's response about Mars with 'Oh you're a star!'</p> <p>Nods and looks at Jessie's diagram 'yes that's very good'.</p> <p>Records Joe's reference to Titanic on Joe's diagram.</p> <p>Continues to scribe information from the text book onto Joe's diagram.</p>	<p>Iceberg with Titanic on it'</p> <p>Looks at Jessie's diagram and they discuss it together. They laugh between themselves when Joe points to a planet and says 'it's gassy; it's a farty planet!'</p>	<p>diagram to her.</p> <p>Shares some information about her family and a documentary they had seen about the Titanic.</p> <p>Shows Joe her diagram and they discuss it together. They laugh between themselves when Joe points to a planet and says 'it's gassy; it's a farty planet!'</p>	
5 minutes	Talking with different pupils about their work;	Nods and moves the text book to share it with Joe [she points to	Joe tells Mrs Peterson about the different people he knows who	Working independently	

	<p>moving around classroom</p>	<p>some of the information in it that confirms what Joe has been telling her].</p> <p>Writes the information onto his diagram. Glances at her watch to check time.</p> <p>'Yes that's right' [reason why planets are colder]</p> <p>Nods as he talks, and writes information on his diagram.</p> <p>Asks Joe 'how far away are the planets?' scribes his answers onto his diagram</p>	<p>discovered the different planets.</p> <p>Joe looks at text book.</p> <p>Joe explains that planets are colder the further away they are from the sun</p> <p>Tells Mrs Peterson about how the planets got their names</p> <p>Looks at the text book and reads out the figures for each planet.</p>		
--	--------------------------------	---	---	--	--

5 minutes	<p>Teacher comes up to stand next to TA.</p> <p>Looks at Jessie's work that Jessie shows to her.</p> <p>Looks at Joe's work 'That's good, excellent'.</p> <p>Smiles 'that's good, well done'.</p> <p>Moves away to another pupil on the front row; holds up pupil's work and calls for the class's attention – brief explanation of what makes this work 'good' –e.g. clear diagram and labelling and important facts –</p>	<p>Explains to Mrs Smyth the information they have include. TA completes Joe's work. The bell goes and the</p>	<p>Joe contributes to the conversation pointing to different parts of his diagram.</p>	<p>Holds her book forward to show them her work.</p>	<p>Give their attention by stopping their work and looking at her and the pupil's book she holds up as an example of good work.</p>
-----------	---	--	--	--	---

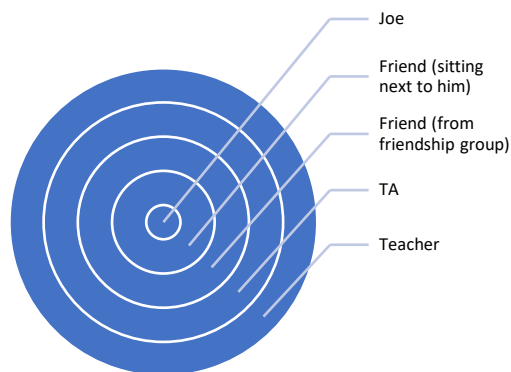
	distance from sun... '[bell sounds]				
Activity: End of lesson					
1 minute	'okay we'll leave it there for today'	Gathers things and leaves behind Joe.	Joe and Jessie chat as they pack away and leave.		Class swiftly pack away and leave chatting with others.
Summary of Joe's time spent on different task types as organised by teacher: Total observation time: 58 minutes Time observed spent in admin activity: 2 mins Time observed spent in organisation activity: 11 mins Time observed spent in learning activity: 45 mins Learning task type and time: Verbal: 45 mins					

Appendix 5 – Joe’s descriptions of his classroom relationships

Joe briefly completed a relationship circle at the end of each lesson to identify who he had perceived as the most –least significant relationship in his participation in classroom activity. This was used as a stimulus within interview. This data was combined for researcher reflection on observations of lesson activity, Joe’s perceptions and Joe’s discourse.

Science and History:

Diagram to show Joe’s relationships from his perspective in History and Science:



Joe gave reasons for his choices:

Science:

‘Jessie knows most of it and I don’t so she helps me out; Tyler sits behind me – he’s my friend –and I talk to him all the time in lesson – but knowing he is there helps me’ (Joe, December 2017; March 2018)

Joe's explanation identified Jessie as most important to him in Science because they talk to each other outside of lessons. This revealed Joe's belief that Jessie was a young person who Joe felt confident and comfortable to talk to.

Despite Tyler and Joe not talking to each other in the lesson, Tyler's presence within the classroom emerged to be significant in how confident Joe felt about himself.

Joe described his relationship with Mrs Smyth and Mrs Peterson:

'the TA helps me all the time, and Miss [teacher] never does I think, erm yes she never does... The TA did help a lot (Mrs Peterson). She did help me with a lot of the questions and answers mostly. She used her own book she had brought in for me.' (Joe, December 2017; March 2018)

Joe's description illuminated the differences he perceived in the support he had from adults in classroom activity. In Science his most important adult relationship was with Mrs Peterson. This made his belief clear that Mrs Peterson enabled him to access curriculum tasks.

History:

Joe explained:

‘Tyler sits behind me and I talk to him; Mike is all the way at the back. The TA helps me out, but Miss [teacher]doesn’t help me out. I know that Tyler and Mike are there and that makes me feel more confident’. (Joe, December 2017; March 2018)

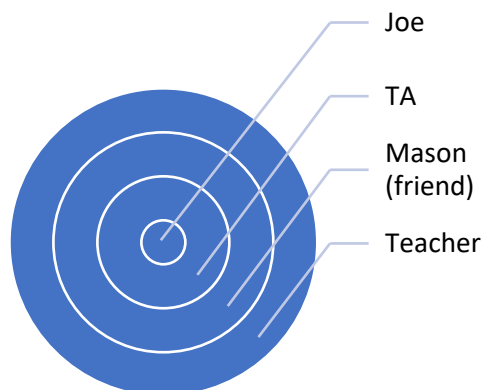
In History Joe identified Tyler (from his friendship group) as the most important to him. Tyler and Joe worked together in History with Miss Kirkhill. Joe identified Mike (from his friendship group) as important to him in History. Mike sat at the back of the classroom in History.

Joe identified Miss Kirkhill as the most important adult relationship he has in History.

In both History and Science Joe identified his subject teachers (Mrs Smyth – Science teacher; Mrs Lennie – History teacher) as being on the periphery of his classroom relationships.

English and Music:

Diagram to show Joe’s relationships from his perspective in English and Music:



Joe identified the TA in the classroom as his most important relationship to him (Miss Kirkhill in Music; Miss Prince in English). Joe's relationship with a friend was the next significant to him (Mason in both Music and English). Joe identified his music teacher (Mrs Calle) and English teacher (Miss Prince on Visit 1; Miss Torrey on Visit 2) as being of the least significance to him. Joe explained his choices:

Music:

'My TA helps me out a lot in music. Jack is a good friend. Mrs Calle doesn't help me at all'. (Joe, December 2017; March 2018)

Joe's belief that the support he experienced from Miss Kirkhill was valued by Joe and enabled him to engage in curriculum activity was apparent. In contrast his relationship with Mrs Calle emerged as irrelevant to his participation.

English:

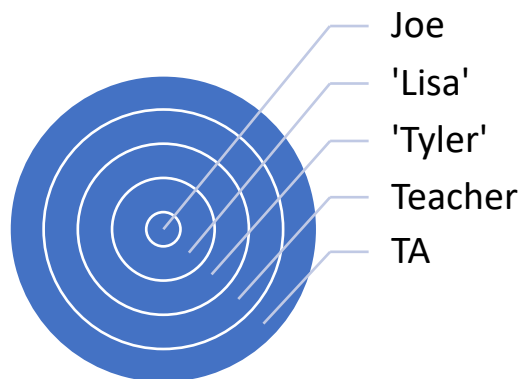
Joe explained:

'The TA – we have different ones in English each day – it's most helpful because of writing and in assessments. I talk to Mason and share ideas with him that helps me; my teacher is a good teacher because she knows about English – she helps a little bit'. (Joe, December 2017; March 2018)

Joe's explanation made it evident that he perceived TA support necessary to help him participate reading and written activity. His relationship with Mason emerged as significant to Joe's development of ideas, and that he perceived his teacher to be an 'expert' in English.

Maths:

Diagram to show Joe's relationships from his perspective in Maths:



Joe explained: *'Lisa is a good person, Tyler is my friend and Mr Pyman helps me out – I'm good at maths so I don't need a TA'* (Joe, December 2017)

Joe's discourse revealed his perception of being an able pupil in maths. This allowed him to be independent from TA's and to only require occasional support from his teacher. Joe's description of Lisa evidenced her personal qualities as being important to him and Tyler being significant because of his friendship with him.

Researcher reflection on the significance of relationships for Joe:

Joe friendships provided him with emotional support.

- Joe's perceptions of the personal qualities of his peers influenced his relationships with them.
- Joe's relationships with TA's better enabled him to access curriculum activity.
- Joe's perceptions of his literate abilities in relation to curriculum demands to determine the support he gets from TA's in task activity.
- Joe's perception of his teachers as irrelevant to his emotional needs and participation in tasks.
- Joe's relationships with his friends were more important to him than his relationships with adults.

Appendix 6 - Table summarising observations of the total percentage of time teachers accorded to the different task types in classroom activity:

Subject/lesson/time in lesson after travel had been accounted for	Minutes / Percentage of total lesson time spent on tasks		
	administration	organisation	learning
Science 1 57 mins	1 1%	8 14%	48 mins 85%
Science 2 58 mins	2 3%	19 33%	37mins 64%
English 1 60 mins	8 13%	16 27%	36 mins 60%
English 2 57 mins	0 0%	4 7%	53mins 93%
Maths 1 56 mins	2 4%	10 18%	44mins 88%
History 1 60 mins	0 0%	8 18%	52mins 82%
History 2 54 mins	1 1%	10 19%	43mins 80%
Music 1	4	7	37mins

48 mins	8%	15%	77%
Music 2	1	5	35mins
41 mins	2%	12%	86%

Appendix 7 - Example of interview transcript (teacher)

Interview Music 1: Mrs Calle: December 2017

1 *Tell me about your relationship with Joe from your experience of him being in music:*

2 I've had three years with him. In year 7 when he arrived, refusal to play in a group we
3 used to do a lot of ensemble playing as a whole group, flat refusal, and would leave the
4 lesson cos we've got rooms. Then do you know what the key was? - letting him hold the
5 door open every lesson, so he was helping other people. And then I seemed to earn some
6 trust and then he'd have a go but it was that he very much it he was in control, and then
7 last year he seemed to have a positive year and with Miss's support because I got two or
8 three we very much tried to keep it positive. He's never going to be able to compete on
9 a GCSE level with the playing and all those sorts of things but if we make it a positive
10 experience about him becoming in charge of his learning and how he controls the
11 situation- that's what I'm attempting to do. Watching him with the boys over there they
12 were very patient with him, because sometimes this group can be a bit pushy/ shovey,
13 and that's why I sometimes take them out, but normally I group them in different ways
14 dependent on the task, and a lot of whole class- we've done a bit of bits, individual
15 listening tests he found quite tricky I think. I think the issue here was having the language,
16 music is definitely needing specific language, and getting him to hear that they're in
17 harmony, or it uses a special technique called a 'flam'. It becomes very specialist rather
18 than a wider, more collaborative skill, or PSHE type skills, so we try and keep it positive.
19 The idea about them working in groups is that they are learning how they learn, because
20 obviously if they go on to GCSE, they need to think what subject is good for me? Why is
21 that good for me? Where can I do the best that I can? I believe that's important in
22 education.

23
24 *What does music mean to you?*

25 Some people say 'why do you study music? What's the point? I'm not going to be a
26 musician'. And we're very much into this collaborative, making you brighter, and we push
27 that element, which is certainly the bit for Joe, and verbal reasoning and all those sort of
28 things that are collaborative skills, and for Joe that's very much what he's getting out of
29 music. The collaborative skills are important to the academic - at GCSE music if you are
30 doing an ensemble together, which is 50% of your performance; 15% of your total GCSE,
31 if you can't play an ensemble, that's 15% gone, and you've got to be able to work with

other students. Last year we had an autistic boy doing GCSE music. He was really interesting to work with - got perfect pitch, and everything had to be 'so'. He found ensemble work difficult - we've already seen it before, and thanks to his piano teacher we moved, but 'no, everyone must stop and wait for him', but no - you've got to fit in! He got there, and wrote the most extraordinary music- he notated in music bird song, and he loved very high pitch notes and very low pitched notes, and then we got around to the subject of synaesthesia, and he said, yes I've got a bit of that; and we played this piece of Handel. I said this piece of music is in A major, and he said no it isn't it's in G sharp!, so I said that will be the recording process; but it made me think in a different way, which I found fascinating. I suppose that's lead me to how I deal with Joe and trying to keep it positive. I keep Joe near the front to give him support, so if he gets a bit lost I can say 'you're alright Joe', and just give him a helping hand; that's very much why he's sat there, and has been for at least 2 years; so again keeping it positive, talking to him, what do you like? What don't you like?

How do you negotiate the music curriculum with the pupils in the class?

In music we get a lot of aural learners at GCSE because of the nature of the subject; we have some visual learners as well because of the use of notation; but in a year 9 class like this, I think there is just one reader, so there is a bit of notation; and there's the kinaesthetic- the doing; so I try and do a bit of all three things, but I often find the aural way is the quickest way at this stage; and Joe responds well to that- if you gave him loads of sheets; he'd be put off straight away. But things like lyrics, I always make sure I don't put too many lyrics up - a verse 1 and a verse 2; because again reading those can slow him down, and not make him part of the community of the classroom experience.

Appendix 8 - Example of interview transcript (TA)

Interview Mrs Peterson March 2018

1 *Tell me how you think the new seating arrangement worked for Joe today:*

2 Joe was in the same place he usually is today, with the same person next to him,
3 which I think was ok for Joe. He needs something he is used to and familiar with, so
4 I'm not sure what happened around him because I think that happened before I arrived,
5 but he was perfectly alright with the lesson. The relationship with the girl next to him
6 is brilliant. They both like science and so they were sparking off each other, because
7 normally Joe isn't the one who is forthcoming, but with her being there, and she's say
8 somethings and he would add things to it. It was really good because he knew things
9 – I was asking questions 'oh what about this? What's on this planet? and is that a gas
10 one?' So he was able to tell me that and he was also able to tell me other things
11 because she say 'oh it's that', and he'd add to it. So that worked really well – I was
12 really impressed with them this morning. It's important to be able to work with other
13 people's ideas, and he doesn't do that very often in his lessons – he's usually quite
14 alone, so that worked really well.

15

16 *Why do you think today was different?*

17 I think the subject because he was familiar with it, so I presume that some lessons he
18 doesn't know very well he'll struggle with, but because he enjoys the subject and
19 knows something about it and he doesn't feel threatened either about the girl, she's
20 quite easy going, she's not pushy. The task was excellent – he struggles a lot with
21 his writing, he's writing is awful – he can write, but he writes it really quickly especially
22 when he's copying because he's looking at the board or looking at the book, and
23 writing at the same time so he's not actually looking at the actual word that he's doing,
24 because he's so concentrating on that, so when you look at the writing I can't read it
25 so I have to check with him that he understands what it says and I sometimes will write
26 something underneath just to make it more clear really.

27

28 *Tell me about the ways you support Joe*

29 We do drawing, because he is quite visual, but he says he can't draw, so he did the
30 basic pictures of the planets, and when we were talking about whether they were gas
31 or whether they were rock or whatever, the girl next to him said 'oh that planet is a

32 farty planet because it's full of methane', so I said 'well what can we put for that?' so
33 we were drawing pictures that represented what they were coming out with, and he
34 said balloons for helium, so we drew some balloons; and for ice we did an iceberg
35 with the Titanic, so he wanted that but couldn't draw it himself, so it worked really well
36 together as they were saying what they wanted. It was good, we were having fun. It
37 was very interactive. It was so nice seeing Joe actually working with somebody else
38 as well as me. He will work with me, but when there are three of you there is more of
39 a spark.

40

41 *So tell me about your role as a TA, and the role of a teacher*

42 A facilitator so helping the student to achieve what they can because not everyone is
43 going to be on the same level, and they've all got different levels of knowledge and
44 skill and confidence to do things so I try and encourage them to the best of what they
45 can do, so that it feels as if they've achieved something. The teachers role is more
46 didactic – they have to get a certain amount of information across and again I think it
47 is important that teachers take into account the differences, so sometimes the work
48 that is set may be a little bit too high, and so if they can use differentiation and they
49 can produce different information sheets - like there's a tick box, or a dual purpose
50 answer it makes it easier for those that are less able to participate and get the answers
51 that's required but in a better way for them. The science teacher is very good. I think
52 it's a good working relationship, she's fairly new. When she first came I'd been working
53 a long time with the previous science teacher who worked in a different way, so I just
54 said what I usually do is. So I don't tend to sit by someone, like sit over them, I tend
55 to wander around and make sure everything is going okay and be there if they need
56 me, and also you as a teacher, so if you want anything- so this morning I went and got
57 the correct paper for her, so I said I like doing that because it makes it more of a normal
58 situation rather than you are there for that person, like 'big brother' because I don't
59 think that works. The teachers do make a big difference. I go into the lesson – it's
60 usually just starting by the time I've got from one lesson to another. She will tell me
61 what they are doing, but it's usually so whipped round- they've got to do the register,
62 to get the paperwork done, get the experiments set up, so there's not a lot of time to
63 go into detail, certainly not planning. I think we do the best we can in the time we've

64 got. I think she values my knowledge and work. The key for me is the relationship you
65 have with the pupil, we work with lots of different students. So for me it is about
66 building the relationship with the student, so if they are doing something inappropriate
67 then to be able to say just quietly 'that's not on' is sometimes enough rather than
68 reading the riot act to. Sometimes though you have to get the teacher to do the
69 discipline bit because it is affecting the behaviour close by or affecting that student,
70 and the teacher has the overall role for discipline. I wouldn't for the life of me go into
71 a classroom and presume to be responsible for the discipline of the class, but if my
72 pupil was responsible for behaviour that was disrupting someone else, I would say
73 something to them. If for example I pushed something with Joe I'm not sure how he
74 would react- he may go into himself or he may have to leave the room so you've got
75 to know who you are working with.

76

77 *How does your relationship shape Joe's experience in the class?*

78 I think because it is an easy relationship- there's no conflict in anyway, I think it keeps
79 him calm. Joe needs to keep calm – if he is flustered or upset he can't work, everything
80 is gone. So because it is an easy relationship it makes him feel better.

Appendix 9 - Example of transcription coding Music One

Interview discourse was reviewed to explore the beliefs that had been underpinning classroom activity. Thematic analysis was applied using a colour coded key.

Stage 1 coding:

Five key themes emerged in stage one coding of interview transcript. These were categories of explanations that were influencing classroom activity. These categories were:

- 1) National – curriculum and assessment requirements determined by the UK Government and examination boards
- 2) Subject – skills inherent to the specialism
- 3) Approaches – reasons why the teacher uses particular tasks and activities
- 4) Roles -
- 5) Relationships – what was understood about different people within classroom activity

Stage 2 coding:

The transcript codes were organised into a table to show each theme:

National
The collaborative skills are important to the academic - at GCSE music if you are doing an ensemble together, which is 50% of your performance; 15% of your total GCSE, if you can't play an ensemble, that's 15% gone, and you've got to be able to work with other students.
Subject
He's never going to be able to compete on a GCSE level with the playing and all those sorts of things

I think the issue here was having the language, music is definitely needing specific language, and getting him to hear that they're in harmony, or it uses a special technique called a 'flam'. It becomes very specialist rather than a wider, more collaborative skill, or PSHE type skills,

Some people say 'why do you study music? What's the point? I'm not going to be a musician'. And we're very much into this collaborative, making you brighter, and we push that element, which is certainly the bit for Joe, and verbal reasoning and all those sort of things that are collaborative skills, and for Joe that's very much what he's getting out of music. The collaborative skills are important to the academic - at GCSE music if you are doing an ensemble together, which is 50% of your performance; 15% of your total GCSE, if you can't play an ensemble, that's 15% gone, and you've got to be able to work with other students.

Approach

So we try and keep it positive. The idea about them working in groups is that they are learning how they learn, because obviously if they go on to GCSE they need to think what subject is good for me? Why is that good for me? Where can I do the best that I can? I believe that's important in education.

In music we get a lot of aural learners at GCSE because of the nature of the subject; we have some visual learners as well because of the use of notation; but in a year 9 class like this, I think there is just one reader, so there is a bit of notation; and there's the kinaesthetic- the doing; so I try and do a bit of all three things, but I often find the aural way is the quickest way at this stage; and Joe responds well to that- if you gave him loads of sheets; he'd be put off straight away. But things like lyrics, I always make sure I don't put too many lyrics up - a verse 1 and a verse 2; because again reading those can slow him down, and not make him part of the community of the classroom experience.

Roles:

but if we make it a positive experience about him becoming in charge of his learning and how he controls the situation- that's what I'm attempting to do

And that's why I sometimes take them out, but normally I group them in different ways dependent on the task, and a lot of whole class- we've done a bit of bits, individual listening tests he found quite tricky I think.
Relationships
<p>I've had three years with him. In year 7 when he arrived, refusal to play in a group we used to do a lot of ensemble playing as a whole group, flat refusal, and would leave the lesson cos we've got rooms. Then do you know what the key was? - letting him hold the door open every lesson, so he was helping other people.</p> <p>And then I seemed to earn some trust and then he'd have a go but it was that he very much it he was in control, and then last year he seemed to have a positive year and with Miss's support because I got two or three we very much tried to keep it positive.</p> <p>Watching him with the boys over there they were very patient with him, because sometimes this group can be a bit pushy/ shovey,</p>

Stage 3 coding:

Stage three coding was analysed using Rogoff's (2003) planes of analysis to spotlight which plane was influencing Mrs Calle's beliefs and what she understood about Joe as a member of the class:

Institutional Belief influencing the structure and organisation of classroom activity: (National Curriculum and Assessment Frameworks; School expectations, structure and organisation)
National
The collaborative skills are important to the academic - at GCSE music if you are doing an ensemble together, which is 50% of your performance; 15% of your total GCSE, if you can't play an ensemble, that's 15% gone, and you've got to be able to work with other students.
Professional beliefs influencing classroom activity: (pedagogical approaches to classroom activity; classroom roles)

Subject:
<p>I think the issue here was having the language, music is definitely needing specific language, and getting him to hear that they're in harmony, or it uses a special technique called a 'flam'. It becomes very specialist rather than a wider, more collaborative skill, or PSHE type skills,</p> <p>Some people say 'why do you study music? What's the point? I'm not going to be a musician'.</p>
Pedagogical approach to classroom activity
<p>So we try and keep it positive. The idea about them working in groups is that they are learning how they learn, because obviously if they go on to GCSE they need to think what subject is good for me? Why is that good for me? Where can I do the best that I can? I believe that's important in education.</p> <p>In music we get a lot of aural learners at GCSE because of the nature of the subject; we have some visual learners as well because of the use of notation; but in a year 9 class like this, I think there is just one reader, so there is a bit of notation; and there's the kinaesthetic- the doing; so I try and do a bit of all three things, but I often find the aural way is the quickest way at this stage;</p> <p>Last year we had an autistic boy doing GCSE music. He was really interesting to work with - got perfect pitch, and everything had to be 'so'. He found ensemble work difficult - we've already seen it before, and thanks to his piano teacher we moved, but 'no, everyone must stop and wait for him', but no - you've got to fit in! He got there, and wrote the most extraordinary music- he notated in music bird song, and he loved very high pitch notes and very low pitched notes, and then we got around to the subject of synaesthesia, and he said, yes I've got a bit of that; and we played this piece of Handel. I said this piece of music is in A major, and he said no it isn't it's in G sharp!, so I said that will be the recording process; but it made me think in a different way, which I found fascinating. I suppose that's lead me to how I deal with Joe and trying to keep it positive. I keep Joe near the front to give him support, so if he gets a bit lost I can say 'you're alright Joe', and just give him a helping hand; that's very much why he's sat there, and has been for at least 2 years; so again keeping it positive, talking to him, what do you like?</p>

What don't you like?
Classroom roles:
but if we make it a positive experience about him becoming in charge of his learning and how he controls the situation- that's what I'm attempting to do
Classroom relationships
<p>I've had three years with him. In year 7 when he arrived, refusal to play in a group we used to do a lot of ensemble playing as a whole group, flat refusal, and would leave the lesson cos we've got rooms. Then do you know what the key was? - letting him hold the door open every lesson, so he was helping other people.</p> <p>And then I seemed to earn some trust and then he'd have a go but it was that he very much it he was in control, and then last year he seemed to have a positive year and with Miss's support because I got two or three we very much tried to keep it positive.</p> <p>Watching him with the boys over there they were very patient with him, because sometimes this group can be a bit pushy/ shovey,</p>
What is being understood about Joe as a member of the class from classroom activity:
In relation to curriculum demands:
<p>He's never going to be able to compete on a GCSE level with the playing and all those sorts of things</p> <p>And we're very much into this collaborative, making you brighter, and we push that element, which is certainly the bit for Joe, and verbal reasoning and all those sort of things that are collaborative skills, and for Joe that's very much what he's getting out of music.</p> <p>I often find the aural way is the quickest way at this stage; and Joe responds well to that- if you gave him loads of sheets; he'd be put off straight away. But things like lyrics, I always make sure I don't put too many lyrics up - a verse 1 and a verse 2; because again reading those can slow him down, and not make him part</p>

of the community of the classroom experience.

In relation to his ability to manage peer relationships in the classroom:

And that's why I sometimes take them out, but normally I group them in different ways dependent on the task, and a lot of whole class- we've done a bit of bits, individual listening tests he found quite tricky I think.

I've had three years with him. In year 7 when he arrived, refusal to play in a group we used to do a lot of ensemble playing as a whole group, flat refusal, and would leave the lesson cos we've got rooms. Then do you know what the key was? - letting him hold the door open every lesson, so he was helping other people.

And then I seemed to earn some trust and then he'd have a go but it was that he very much it he was in control, and then last year he seemed to have a positive year and with Miss's support because I got two or three we very much tried to keep it positive.

Watching him with the boys over there they were very patient with him, because sometimes this group can be a bit pushy/ shovey,

